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ROAD TRANSPORT IN INDIA

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By

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Contents

		Page
Preface	...	i
Need for Roads	...	1
Basic Problems	...	26
Organisational Problems	...	43
✓ Road Transport Rates	...	63
The R. T. D. of Hyderabad		82
Provincialisation of Road Transport	...	94
Road Building and Road Plans	...	113
Bibliography	...	128

Preface

Mechanical road transport in India had its phenomenal growth after the first great war. In the early stages of development, it did not receive due public attention to the many problems that it was creating in the transport economy of the country. The end of the post-war boom in 1929 was followed with the presentation of the road-rail problem in all its severity. It was in the attempt to solve it that interest was evinced in the grasp of the various issues that unregulated motor transport had raised. The aim of the book is to present some of these complicated problems and attempt at a scientific analysis of the fundamental issues involved.

India is passing through an era of enthusiastic nationalisation, Many Provinces have declared themselves in favour of nationalisation of road transport services. Some have already initiated them. This measure is not only unprecedented but intricately mixed with many issues relating to the railways and the Central Government. A chapter is devoted for a discussion of this most vital scheme of rationalisation in road haulage in India; and in the hope that the earlier formed R.T.D. of Hyderabad would have some lessons to lend the present Provincial services, a chapter relating to the inception, organisation, expansion and effects of the R. T. D. is also included in this book.

The author expresses his gratitude to the N. S. Railway and M. and S. M. Railway authorities for the facilities they have accorded him for an intimate study of the problems of road and rail transport respectively. Thanks are also offerred to the other bodies and persons that helped the author in understanding the problem of road transport in its fullness.

V. V. Ramanadham

Need for Roads

We need more roads and better roads. Ours is a land of villages. India has lakhs of villages untouched by modern roads. Many are not served by any road. The Indian villages look like scattered human concentrations unconnected with one another. They are like spilt pearls of a national necklace.

Our roads are too few for our area and population. 286,000 miles should be condemned as a tragic farce in a land of 1,623,000 square miles and 400 million people. They work out at 220 miles for 1,000 square miles, as against 3,000 miles in Japan and 2,000 miles in United Kingdom. We stand poor comparison with small countries which are inherently less resourceful. Our pucca road milage for example is 200 per million men, while Australia has 9,000 miles.*

Aid to agriculture

We need roads as an aid to agriculture. India's staple industry is agriculture and

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*H. G. Verma, "Post-war Road Planning in U. P.", The Indian Concrete Journal, January, 1946.

CSL

70% of her people are dependent on it. The statement made of New Zealand applies with greater force to India that "amongst the services on which the people rely for their daily requirements, road transport is very prominent."[*] But India is the only country in the world, where the most primary occupation of the people is least equipped with its vital necessity—namely good roads.

The foremost effect of road development lies in the stimulation it gives to larger production. The narrow village market is widened and a larger produce is raised with the knowledge that it can be marketed outside or abroad. Transport influence on productive expansion is best described in the Report of the Indian Industrial Commission, 1916-18. "Turning in the first place to the rural areas," they say, "we find an increasing degree of local specialisation in particular, crops especially in those grown for export . . . . . The people have been led to make this change by the cheap railway and steamer transport, and by the construction of roads, which while facilitating the introduction

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[*] "National Public Works," League of Nations, Organisation for Communications and Transit.

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of foreign imports, also render available to the farmer in his distant and land-locked village a large share of the price offered by far-off nations for articles which once merely supplied the needs of Indian rural life."

It is incontrovertible that railway expansion in India was followed by an expansion in agricultural production. The correlation is likely to be higher in the case of road expansion; for roads run like veins through the very heart of agricultural tracts. It is due to their sparsity that all lands are not brought under the plough. If it is true that the strength of an army lies in its legs, it is more true that the strength of our agriculture lies in our roads. We should be struck painfully with the observation of Mr. Parker that "in India there are today huge areas totally devoid of any lines of communications. There are areas with tremendous agricultural possibilities for the growing of all sorts of crops, which are now lying fallow except for the needs of the people living there."*

"India is thus being held back while the rest of the world progresses."† Norway undertook road works with the certain hope of a more intensive cultivation

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* and † Indian Finance Annual, 1944.

CSL

of land hitherto little exploited and of a settlement of districts which had hitherto been of no value. New Zealand was similarly definite that better highways would aid in the direction of land settlement, and better production might be obtained through reduced costs in transport to and from market centres. Netherlands achieved wonderful results from road and canal works. "Thousands of hectares of wasteland have been transferred into arable land on which hundreds of persons can find a livelihood."*

All this would be possible in India too. Many lands, which might be classed as infra-marginal now, would come within the range of commercial production, if roads and better roads aid in neutralising their locational disadvantage. It may be suggested here that roads would greatly contribute to the welcome conversion of many fallow lands into food production.

We should not forget that road development prompts a change in the type of production, which is as significant as the expansion in production. It is well-known that the early Railways caused a diversion of some food lands into jute production in Bengal. Further the last few decades have witnessed an expansion of cultivated areas more rapidly under cash crops, whose selling advantages have been raised by transport development, than under food crops. One of the vital drawbacks in the food production system of our country is that we utterly lack in a proper supply of protective foods. The brightest of qualitative changes in our food position would be the improvement in the production of eggs, fruits, vegetables, milk and other dairy products. These alone would make our diet a balanced one.

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*"National Public Works."

But these are perishable, best produced in rural surroundings. It may be mentioned that they were not produced all these years, as there are no roads to ensure their rapid transit. If these are given, perishable production of the protective food type is sure to gain fillip.

We can base the correctness of this contention on American experience. The U. S. Bureau of Public Roads investigated into the composition of farm products moved by trucks on the California Highway System.* Results showed that garden truck, fruits, meat, dairy products, poultry, eggs, honey and bee products accounted for about 66% of the aggregate load. The rest was composed of cereals, hay and feed.

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*Percival White, "Motor transportation."

fuel wood and cotton. These data, however unrelated to Indian conditions, are useful in showing that protective food production is the first and best line of farming to gain from roads brought nearer the fields.

Agricultural marketing

To produce more is not all our business; we have to market all the produce efficiently. Roads, it can be shown, have an admirable influence on agricultural marketing. The citrus fruits produced in Assam are not usually marketed as far away as they could be for want of roads.* "More than half of the perishable produce of India runs to waste on account of delay in reaching the market consequent upon the limitation of transport. Improved roads, which mean faster and larger transport facilities, particularly with the use of motor lorries, could convert this waste into wealth."† Mr. Parker cites a specific instance. "For hundreds of miles do rivers like the Godavary flow through rich soil, the produce of which cannot reach the market it deserves for lack of road facilities."‡ The truth of these facts can be supplemented with Herbert Hoover's statement in 1919 "that fifty per cent of the perishable food produce in America goes to waste because of inadequate marketing and transport facilities."[*]

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*Report on the marketing of citrus fruit.

† and ‡ M. H. Parker, President, The Indian Roads and Transport Development Association Ltd. Indian Finance Annual, 1944.

What is more significant is that the produce can be marketed at the lowest cost. Of all the marketing expenses, transport ranks as the most significant item. For example jute reaching the important markets of Jalpaiguri and Haibergaon involves a transport cost of Rs. 0-14-4 out of total marketing expenses of Rs. 1-1-10 per maund, and Rs. 1-3-4 out of Rs. 1-10-8 respectively. It is obvious that an economy in transport cost, brought about by roads or better roads, is of invaluable consequence in agricultural marketing.

We need not labour the point that transporting costs are high in India. All Marketing Reports are unanimous that the cost of transport by road is governed partly by the condition of the roads. The worse the road the higher the cost. In the case of jute, transport facilities from the interior to the assembling centres are not available all the year round. Hence, as the Marketing Report on Jute says,

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[*] "Indian's Demand for Transportation" by William Earnest Weld

CSL

bullock carts are the mainstay of rural transport in North and Western Bengal, Bihar, Orissa and the highland areas of East Bengal and Assam. That motor lorries have not attained great prominence due to the paucity of good roads is true not only in the jute-growing areas, but almost everywhere else in India. In the carriage of tobacco by road, the cart is found to be the most important except in the Nipani area in Bombay Presidency where good pucca roads exist. Similar conditions obtain in the case of coffee. "A good number of plantations do not have even kachcha roads for transporting coffee."*

We shall not multiply these instances, which are too many to list out exhaustively. Consequently agricultural marketing in India rests on primitive agencies, which are costly. The Marketing Report on tobacco says, "the hire charges on pucca roads are usually lower than those prevailing on kachcha roads . . . . the hire charges by motor lorry come to about 2/3 or 3/4 of the cart hire charges." The following comparison, in the case of coffee, is highly instructive:

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*Report on the marketing of coffee.

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
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Cost of conveyance per ton mile.

Head loads	....	Rs. 2- 9-6
Pack donkey	...	1-10-9
Pack pony	...	1-14-0
Pack bullock	...	1- 1-0
Bullock carts	...	0- 4-0 to 0-8-0
Motor lorry	....	0- 3-6 to 0-5-0

The retardation of road development drives the cultivator to choose the bullock cart as the inevitable means of transport. How bad roads have arrested his choice of a truck is best indicated by an investigation recently undertaken in America. In 59 out of 100 cases, the truck was not favoured for the reason of bad roads.* Perhaps the reason applies to more than 90% of cases in India.

The agriculturists gain not only from larger production and cheaper marketing, but from the possibility of higher prices. Communication difficulties may be a "major cause," as in the case of jute, for the early sale by growers. The consequential price is obviously low. Produce is often sold on the spot, and the cultivator is not trained to strive for the best, though somewhat distant, market. With good roads, he has a good chance of obtaining a fair price and the full benefit of that

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*Percival White, "Motor Transportation."

CSL

price, by means of a sale directly conducted by him at the best market.

On the whole, good roads contribute incalculable good to agriculture, which seems to be a greater beneficiary than industry. The initial range of movements of agricultural produce is usually outside the pale of railway influence. The Mitchell-Kirkness Committee opined that about half the area in India is outside the five-mile range of railway lines. It is on the efficacy of roads then that the initial stages of agricultural marketing must depend for efficiency. The opinion of the Norwegian Government is worth citing: "in many parts of the country, new and better roads will render agriculture and forestry more profitable."

Benefit to industry

The effects of roads on industry do not appear so outspoken as on agriculture. But they are real and work themselves up slowly but surely. At the outset, we can observe that roads form part of a favourable background for decentralisation of industry, though we cannot dogmatise that roads tend to decentralise industry. Railway commonly favour a few places which develop into gigantic industrial centres. In this process of extreme over-concentration many small and scattered centres are likely to be left out. Indian handicrafts, to repeat an argument not fully realised by many, decayed partly due to railway extensions which gave transport advantage to imported manufactures and due to the corresponding absence of road building which alone could have given the handicraft centres some transport advantage. Is it not reasonable to hold that roads in rural areas would certainly neutralise the disadvantages of transport and in marketing, under which our handicrafts and subsidiary industries fatally suffer?

We may note a few relevant facts about Japan here. Her textile industry is as much a gigantic one as it is on a cottage basis. Its decentralisation has been possible, for two reasons. Firstly, there is plentiful distribution of cheap electric power. Secondly, she has an excellent road system. Her road length per 1,000 square miles is 3,000 miles far higher than in "the most densely motorised country in the world," viz. England. It is logical to suggest that the Japanese roads are a real factor in the prosperity of her small scale industrial units.

The need for industrial redistribution is already felt in India. The need is in fact greater for the development of village industries, so that the per capita income

CSL

in rural areas might be brought nearer to the level of urban and industrialised areas. How grossly they vary is reflected in a recent memorandum of the Indian Government.* Would it not be right to argue that roads would assist in erasing these differences?

Let us view the economy of roads to small industrial units. Their transport needs are of small bulk, which railwaymen view with obvious disfavour. Railwaymen legitimately quote lower rates on wagon loads, and illegitimately have many ways of favouring large shippers. The small ones become their step-children and are hard hit with relatively high rates. In recent years, the small shippers have witnessed, with some sense of relief, the phenomenal development in motor transport. A bulk, that is too small for the railways, is more than sufficient for the motorman. It might make a lorry load and obtain the lowest rate possible on roads. This is how many small men have transferred their business to the lorry and how road services have rescued small men from extinction. It may be said that road vehicles and small shippers have striven to keep each other in prosperous business.

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*Government Memorandum on the Location of Industry, 1946.

CSL

Percival White speaks of the fresh lease of life that road facilities have given to decentralised small units in America. "In respect to location," he points out, "some plants, which had become practically superseded on account of their distance from the railroads, now find themselves, through the agency of the motor truck, with a new lease of life, and may be better off today than their competitors, on account of superior labour advantages, proximity to raw materials, or for some other reason." He shows how "only half of the four thousand coal mines in the U. S. are situated directly on railroads," and how the rest should depend on adequate road services for their very survival.

Economy to hauliers

Good roads are a source of great economy to the hauliers themselves. The bullock cart, on which our primary marketing mostly depends, is expected to experience an annual saving in operating costs to the tune of Rs. 55 crores, if roads are made more suitable to it.*. It is commonplace knowledge now that our roads and our bullock carts are not fitted to each other. It is certain, besides, that the

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*Indian Finance Annual, 1944.

CSL

bullock cart will stay for a pretty long period in the near future. The Royal Commission on Agriculture expressed the doubt whether the motor lorry would ever supersede the bullock cart for short distance traffic in rural areas. The recent Technical Sub-Committee on Road Transport and Road Rail Relations have likewise stressed the importance of the bullock cart in the marketing of main staples. In the face of these facts, is it not the first responsibility of the Government to make the roads suitable and economical for the bullock cart?

It needs less argument that motors substantially gain from good roads. "One American survey estimates that improved roads in eight countries have reduced hauling costs from 33·5 cents per ton-mile to 15·7 cents per ton-mile on the average, a saving of 17·9 cents."* "The benefits of good roads," J. M. Clark states, "should be at least equal to their total cost."

There is striking evidence of this economy in the low rates that are usually quoted by city buses. The explanation is that roads are good in cities and contribute to their operating economies. Though progressive Local Boards and Governments have of late been desirous of building concrete roads and cement roads, one should be staggered at the low milage of good roads in India at present. Not more than 63,000 miles have a modern surface. Cement concrete roads are far fewer and have a nominal length. "With 269 miles of concrete roads the U. P. P. W. D. can claim to be the pioneers in cement concrete Road constructions in India!"*

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*J. M. Clark "Economics of Overhead Costs,"

Far-reaching functions

Apart from these direct benefits, roads have some far-reaching functions to fulfil. Firstly they ought to feed the railways. No nation can afford the colossal waste involved in overlapping road and rail services. India, with her poor resources, is the least able to bear it.

Roads are essential for the prosperity of the railways, whose main traffic in India is to be gathered primarily from villages. The indispensability of roads as feeders for railways is described by the Royal Commission on Agriculture in the most striking manner: "Without good and sufficient roads, no railway can collect for transport enough produce to render its operations profitable, while the best of roads cannot place the producer of crops destined for markets overseas or in distant areas of the sub-continent in touch with the consumer." They observe that "the difficulties arising from transport to these centres are undoubtedly very serious.... The difficulties arise chiefly before the rail head is reached.... Once the rail head is reached, transport presents less difficulty." This finding dated 1928 applies with equal force to our conditions today. They have further shown how, in India, "as the railway system extended, it became increasingly necessary to build roads to feed the railways.

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*H. G. Verma, Indian Concrete Journal, January, 1946.

It does not suffice to accept the need for feeder roads. We must train ourselves not to look at every feeder road as a productive work in itself. The traffic on some might not be large enough to pay for the road. But its favourable effects on railway working costs and gross revenues would more than offset the apparent unproductivity of the road. The feeder road might greatly enrich the railway. Viewed from the national standpoint, the position merely is that the different branches of transport work in mutual interest, and not in compartmental self-interest. To draw the analogy of our early branch railways would not be illogical in this context. They were taken to be

CSL

mainly in the main lines' interest; the concept of their net good to the main railway was accorded recognition in the contractual terms that certain rebates would be paid by the main lines to these branches towards their specified earnings. In a similar way our road authorities have to view the construction of some feeder roads in the broader light of ultimate good to the railways and to the community.

Secondly, roads should serve as a prelude to railway branches. Their merit is that, at a low cost of provision, they ably pioneer the route and establish the traffic potentialities of the area. If these are large enough, a railway may be ventured at a later date. If the route has a traffic too small for the railway plant, the roads would continue to remain as the only carriers of it. Railway extensions are often characterised as a "leap in the dark," but if roads precede them, they would be in the nature of rehearsed strides in twilight.

Finally roads are held by some traders as a check on railways. The latter become monopolies, particularly when the State takes them over; and the only saviour to the community lies in their rival, namely motor haulage. Though this line of thought is not without foundation, we should not be unaware of its disservice in encouraging road-rail competition to extreme limits. That roads should fight against railways, for the sake of low rates, does not fit in with the modern concept of planning against competitive evils. It reflects our incapacity to evolve a national plan that is inequitable neither to railways nor to roads. As a concept it is good, namely that there should be a healthy check on railways. But in practice it is bad, that roads should be instigated to operate as the check. The real solution lies in the substitution of planned control on railways for the road conspiracy against railways resulting in "road rail anarchy,"

Public works item

Roads often constitute an important item of public works executed by Governments with a view to relieving unemployment and promoting economic activity. The League of Nations' Organisation for Communications and Transit collected and published detailed statistical evidence on this subject. It is possible to derive, from a study of that data, certain points of general application to all countries.

Firstly roads occupy a high place in all national public works. 16% of Canada's Unemployment Relief Fund Expenditure in 1931 was on roads. U. S. A.'s Federal

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Funds allocated to roads were 35% of total actual expenditure on all Federal Public Works in 1930, 10% in 1931, 42% in 1932 and 40% in 1933. The employment of credits in Finland during 1930-33 on roads and bridges was 46%, 51%, 41% and 31% of total credits during those four years. Yugoslavia is another good instance. Her expenditure on roads, bridges and culverts was 35%, 51%, 52% and 48% respectively in the years 1930-34. The conclusion follows that roads are a favourite item in the public works programmes of all countries, the reason being associated with the very purpose of the works. The object of such works is "to reduce unemployment and to increase purchasing power through the construction of useful public works, thereby increasing the consumption of goods and also providing employment in the capital goods industries."[*] Roads admirably satisfy the tests applied to public works before Governments undertake them. The tests, best expressed by the U. S. A. Government in their evidence to the League, are:

"(1) Are the projects socially desirable and do they contribute something of value to the community?

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[*] "National Public Works."

(2) Will additional outlay by the Federal Government for maintenance and operation be required after the project has been completed?

(3) Can the project be commenced at once and completed quickly?

(4) Is the project located in or near a centre of unemployment, which would entitle it to special consideration?

(5) Is the project integrated with other projects in a significant plan, which give it a preferred status?"

The essential undercurrent of the above tests is that "the works undertaken are preferably those necessitating large expenditure on wages as compared with other items."* Undoubtedly the expenditure on roads is mostly made up of wage payments. The proportion of the latter varies from country to country, according to price levels of labour and material and to the origin of material used. But one thing is certain. Excepting canals, no other public work pays so much to-wards wages as roads do. It is instructive to read the evidence of the Norwegian Government to the League. "In the case of

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*"National Public Works."

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works connected with waterways, the proportion spent on wages is considerable (80%), for the materials employed in this category of work are of little importance. In the case of construction of new railway lines, wages amount to about 60% of the total expenditure. In the case of road constructions, where materials and equipment are of less importance, wages amount to from 70 to 75% of the aggregate cost." Bulgaria paid as wages 56% of its road expenditure during 1929-34. In contrast her railway workers received only 33% of the sums spent on railway construction. New South Wales indicates brighter hope for wage-earners, with her experience that "on some country road works . . . . labour might absorb upto 85% of the expenditure." The earnings of workers in road works vary, it is true; but not a single country has indicated a figure less than 50% of road expenditure as the proportion of wages. And these figures exclude considerations of indirect employment, regarding which the U. S. A. Government commends the "principle of estimating that the number of people who were employed in the manufacture and transportation of the material used was roughly equal to the number employed directly on the projects."*

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*"National Public Works."

The share of wages is all the higher when the road works undertaken are not new constructions, but maintenance works. Obviously less material is required for the latter. An estimate is available from New Zealand that on maintenance works 75% of the expenditure accounts for labour charges and 25% for materials and equipment.[*] The statistical data collected by the League, unfortunately, gives us no idea of expenditure on new roads and road maintenance separately, except in the case of Yugoslavia. In this case figures are strikingly in favour of maintenance in the case of roads. In the four years and a quarter from 1930, maintenance accounted for 87% of road expenditure, while the rest of 13% was on new roads. Herein lies a lesson for most countries including India. To speak more of India, the roads need a thorough reconditioning and no amount expended on it could be condemned as extravagant or unwise in the near future. As an employment measure it has a further merit. While unemployment is rampant in one region, there might be dire need for roads in another. But it is almost likely that the former region affords ample room for road betterments which may be undertaken so

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[*] "National Public Works.".

CSL

as to avoid labour migration. Moreover, road betterment is an item of expenditure rarely undertaken by the usual road authorities. It is upto the Central Government, when it launches on relief works or other works calculated to employ men, to make specific grants towards road betterments.

It may be mentioned in conclusion that in India the share of wages in the total expenditure on roads is bound to be higher than in many other countries. The reason is that in the interests of length we plan roads of a low standard which involve low expenditure on materials and road-making plant and a high proportion of labour power. The post-war plan consisting of 150,000 miles of village roads is an outspoken evidence.

General effects

The general effects of road development are too obvious to need lengthy explanation. Prices tend to get equalised in different markets and at various places. A recent Report on the marketing of wheat cites the instance of prices at Liyalpur and Calcutta, which are different by Rs. 1-1-7, "of which Rs. 1-0-4 is due to the cost of transportation alone."

Famine-striken areas are the greatest beneficiaries of roads. Most people die

CSL

not of poverty but of foodlessness. And of many Indian famines it is true that foodlessness in an area is not caused so much by total deficiency as by a regional shortage aggravated by isolation from surplus areas. Roads would, facilitate the flow of food from surplus to deficit areas and reduce the prices in the latter regions. The rigours of famine could be thus tempered.

There is a large variety of indirect benefits, which it is difficult wholly to attribute to road development. But the latter has its own mighty share in bringing them about. Land values increase as their locational significance gains from new road works. In assessing the indirect value of public works, the U. S. A. Government refers to an increase in the collections of tobacco taxes.* Good roads foster motor services and the progress of the latter reacts favourably on the finances of the Government.

Lastly, there is an endless train of social benefits accruing from good roads. "Isolation perpetuates ignorance. Good roads promote the free exchange of ideas no less than of merchandise."† J. M. Clark cites a bulletin of the U. S. Department to show that in some parts of

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*National public works.

†Royal Commission on Agriculture in India.

U. S. A, attendance in schools improved by a substantial percentage, since the development of roads. "Not only have the roads contributed towards a larger school attendance, but they have been quite instrumental in lifting the standard of instruction by making easier the consolidation of little one-room schools into graded schools."*

We may sum up by quoting the New Zealand Government: "Amongst the services on which the people rely for their daily requirements, road transport is very prominent; and therefore the provision of reasonable roads and main highways has a relation to the activities of the people."†

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*"Economics of Overhead Costs."
†"National Public Works."

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6799

Basic Problems

Road transport has some features which distinguish it from the railway, another inland transport agency. The two are similar in function or purpose, but quite dissimilar in some fundamental points of structure, organisation and status. Some of these are presented below. It appears as though on most of these grounds, road transport labours under some inherent handicaps. These are inherent, it may be repeated, and are almost inevitable. The object of the following analysis is not to make out an impossible case for the complete removal of these inherent anomalies, but positively to provoke thought on the ways and means of minimising the bad effects of these inherent problems of road transport.

Road owner and road haulier

The most fundamental characteristic that deserves notice is the divorce between the road haulier and the road operator.

The interests of the haulier are not always the same as those of the road authorities. He is in the field to carry traffic, because there is traffic, or because he desires to stimulate traffic. It is up to those that create the road bed to build the most suitable roads. But of how many roads in our land can we say that traffic interests have weighed sufficiently with the road authorities? Is not the remark of wide application to roads in India, that "it would be criminal to spend the tax-payers' money on the construction of roads which may finally carry nominal or no traffic?"* The explanation is mainly financial in nature. The Local Boards' concern is for economy in construction. Less frequently the object might be economy in maintenance. It is rarely that they are guided by considerations of operating economy, which is what the haulier cherishes most.

The gravity of error has always lain in the misconception that roads are a matter for engineers first, for engineers next and for engineers last. Engineering is no doubt a basic consideration; but traffic is perhaps the determining factor. It can be shown that many railways exist in the world which would have ended as condemned propositions if engineering opinion were the last word on railway construction. Writing on highway transport, J. M. Clark opined, "here the decision to build the highway, and what kind of a roadway to build, is made through political machinery and subject to political forms of influence, without, in most cases, a really adequate traffic survey of costs and benefits,"* An instance may be cited, nearer home, of the N. S. Railway expressing similar views in a more direct manner: "when a railway project is being considered the first essential is a commercial survey by a traffic officer and not by a construction engineer. We consider this policy should apply to roads as equally as to railways."† It is unfortunate that this policy is not applied to roads yet in India, with the exception of Hyderabad where the builder as well as haulier is the State itself.

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*H. G. Verma, U. P., P W.D., "Post-War Road Planning in U. P." The Indian Concrete Journal, January, 1946.

It should be recognised that roads are more significant than as mere administrative units. A road system, with a uniform transportation characteristic, is obviously a self-condemnation if it is made up of as many standards as there are authorities managing it. Actually what results is a bad, incomplete and unbalanced road system. "The poorest section of a highway determines the capacity of the entire route, and the failure of one political unit to follow the general plan of improvement may impair highway service to an entire community."* This utter planlessness in our road development drew specific attention of the Jayakar Road Development Committee in 1927. We are safe in remarking that our road condition has not since improved.

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*J. M. Clark: "Economics of Overhead Costs" P. 302.

†N. S. Railway Records.

It needs no lengthy argument to show that the separateness of the road owner from the haulier leads to serious operating diseconomies to the latter. Bad roads at once raise his expenditure on tyres, on petrol and on repairs. His provision for depreciation would be high. Besides, restrictions might be placed on the turn-around of his vehicle in the callous self-interest of Local Boards. Their angle of vision is reflected in the typical proposal that "the routes of 16 miles and above may be classified as long and the rest as short. One and two trips may be respectively permitted."† It is a pity that 32 bus-miles are the motorman's daily maximum! The only explanation is that the restriction brings more buses on road and more buses bring more licence money.

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* "Communication Agencies and Social Life," By Malcolm M. Willey and Stuart A. Rice.

†The records of the Guntur District Board, Madras Presidency.

The haulier further suffers from an inability to schedule a regular service. Subject to the hypothesis that there is traffic, it is road condition that determines the regularity of his service. Now the question is: can he be sure of a motorable road throughout the year? If he were responsible for the road bed, like the railway, he could be. In the records of the Guntur District Board occurs the statement "the important taluk centre of Repalle has no road motorable all the year around, though efforts are being made in the direction; some of the important trade centres in the interior are cut off more than 9 months in the year."* The haulier, in short, is at the mercy of the Local Boards.

The most serious anomaly is that the haulier is not the master of his own budget. This is strange and perhaps outrageous to men in business. A high proportion of his expenditure rests on external decision. The Central Government levies an import duty on petrol, on vehicles and on parts; the Provincial Government asks for registration and licence fees; and there are other minor fees. These

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*Ibid.

CSL

might be as high as 35% of the costs of an average haulier.* Most of these are in the nature of capital costs spread into annual instalments. But the essential question prompts itself: has he any control on the amount of capital cost and on the consequential fixed charges, which, a railway man, in contrast, can take care to regulate? Has he any means, unlike the railway, of budgetary control on the annual maintenance charges occasioned by the road bed? Is he in fact assured that the fixed road bed is kept in due condition so as to render lower revenue expenditure possible? It is difficult to answer these questions favourably for the hauliers. What Mr. Arnold Robinson said of Canal transport applies accurately to road transport too. "Most of the charges involved are levied by outside authorities and it is to these authorities that the coasting industry must look for help."

Decentralised responsibility

Roads have been a Provincial subject in India. The Central Government evinced interest in railways as greatly as it has little interested itself even in a general

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*The Mitchell-Kirkness Committee Report.

CSL

scheme of co-ordinated road development in different provinces.

It is not difficult to give statistical evidence to the consequences of the decentralisation of road responsibility over different Provinces. Obviously the fortunes of road development are bound to vary from Province to Province, for no more valid reason—it should be noted—than the mere fact of decentralised responsibility. Road mileage figures in different Provinces do not indicate signs of balanced development. Bengal had, in 1940, a mileage of 91,192, while Madras had but 35,717 miles, the U. P. 31,589 and the Punjab 25,142. All these are bigger Provinces than Bengal. The comparison becomes more striking when we look at the road mileage per square mile in these Provinces. The figure for Bengal is 1·2, whereas Madras has ·25 miles, the Punjab ·4 miles and U. P. ·4 miles, per one square mile of area. We may now correlate the road mileage in a Province with its population, and see if there exists any uniform basis of development in such correlation. Orissa and Sind stand out as extremes with ·7 miles per 1,000 people and 2·7 miles respectively. Midway come Bengal and C, P. with 1·5 miles and ·9 miles respectively. Let us next examine if road development in a Province bears any relativity to railway development, on the doubtful assumption that the railway mileage is a rough indication of its transport needs. On this basis, while Bengal has 12 miles of road per every rail mile, C. P. and Berar has but 3 miles; U. P., Madras, Bombay and the Punjab have respectively mileages of 7, 8, 7 and 6 per every mile of railway line,

These comparisons lead us nowhere except to the realisation that road development has been unbalanced beyond doubt, in different Provinces in India. There is no similarity even in the proportion of good roads to the total mileage in different Provinces. C. P. and Berar has 63% of its roads, with modern surface; whereas Bengal bears a ridiculously poor contrast with no more than 4% of its roads, surfaced in the modern way. Other deviations may be typified with the examples of Madras with 60% modern roads and Sind with 2%.

There are a few anomalies that strike us in the realm of Provincial road developments on the whole. A Province like Sind ranks relatively high in road development; but its roads are far from modern. C. P. and Berar ranks extra-ordinarily in the quality of roads; but the mileage is far too short. A Province like Bengal has

CSL

many roads, but almost all roads are of a low type. In certain of its districts it is found that 70 to 80% of the villages are totally cut off from outside communication during the monsoon.

The above evidence of diverse Provincial development can be supplemented with figures relating to the expenditure incurred by Provinces in recent years, on the maintenance as well as on the construction of roads. One would expect either a fall or a rise consistently in Provincial expenditures on road maintenance. But figures baffle our expectation. Some Provinces like Bombay and Sind, Bengal and the Punjab had an almost consistent rise in the amounts spent on road maintenance year after year. But we witness at the same time an erratic swing of the expenditure curve in certain other Provinces like U. P., C. P. and Assam. Regarding capital expenditure on roads, we should, however, be prepared for some diversity among provinces. But what we actually find merits to be characterised as an obvious antoganism in Provincial policies. While in Bombay and Sind, Bengal, U. P., Bihar and Orissa, there was a marked rise in the capital expenditure in 1938-39 over that in 1933-34, that in Madras, the Punjab, C. P. and N. W. F. really fell down.

CSL

This is not the full description. Roads, it must be noted, are further decentralised over different Local Boards—the District Boards and the Municipalities. Evidence need not be piled up to strike a note similar to the above, indicating the adverse consequences of management let down into a local affair. We feel it sufficient to refer to two columns of Annexure B of the Report of the Working of the Local Boards in the Presidency of Madras. The two columns are entitled "cost per mile of district board roads only" and "condition of trunk roads." How violently the points of comparison vary from one another and often become points of contrast can be seen from the fact that Tinnevelly, Ramnad and East Godavery spent Rs. 346, 339 and 341—the highest figures in the list—in 1939-40, whereas Anantapur spent Rs. 132 per mile; Bellary, Chittoor and Coimbattore Rs. 144, 153, and 162 only. Secondly the official opinion itself on the trunk road condition varies between "good" and "bad." On other district board roads the opinion, if recorded, should be far more unpalatable to the boards.

In India, road administration has been an extremely local affair so far. It is true of many other countries too. It had some justification in the early days for two reasons. Firstly, roads were calculated

CSL

to serve no more than purely local needs. Secondly roads were not suspected with potency to challenge the national railway system. Neither of these assumptions holds good today. The words of Willey and Rice are pregnant with meaning that "the automobile has rendered local administration of highways obsolete, even though in most instances it persists as a troublesome social lag."* And it is essential that roads, which have an unprecedented role in the nation's transport business now, should be elevated from the chaos of decentralised administration.

Bad roads

It has been the misfortune of motormen to be confronted with bad roads in almost all countries, though the low standards of roads are not necessarily a permanent feature inherent in road haulage.

We shall take the examples of England and India. In England, roads were held to be productive of danger and delay in an excessive measure. Mrs. Hicks opined that in more than 75% of fatal road accidents the road was partly to blame.† In India, low surfaced roads are about four times as long as good ones. These are perfect indications that typify the state of roads in most countries of the world. The explanation essentially rests on the absence of a road plan, which seems to be the universal bane of road development. Roads are built irrespective of traffic requirements in future and ignoring that the law of traffic is to grow. In poor countries, financial considerations further conspire against the building of good roads. As a result, roads have come into being, which little suit the traffic at present and deserve being called bad roads.

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*Malcolm M. Willey and Stuart A. Rice, "Communication Agencies and Social Life."

†Hicks Ursula K. "The Finance of British Government 1920-36."

Local authorities, that build roads, have often exhibited an incorrigible inertia in the realm of road improvements. That there is positive need for these is not always recognised by these bodies; for they are little equipped with an objective evidence that could induce them to action. If road transport statistics were fully available, at least a few thinking authorities would be moved in the proper direction. But in India, as in many foreign countries, such data is not available. Nor does the alternative urge to action exist in the shape of effective representation from the road hauliers. It is piteous that even when the road authorities are struck with such needs, their financial position constitutes a stumbling block. Constitu-

CSL

tionally the revenues of local boards are inelastic in nature and cannot patronise a substantial betterment of roads. Often there arises a choice between improvements and extensions. It is possible that new roads are fondly taken up, as against betterment of existing roads. Thus roads continue to be bad and decay further; and new bad roads come into existence.

The bad roads often become worse because of bottlenecks. These are as common in road transport as they are rare on railways. The growth of street-side and road-side interests is an irresistible phenomenon which becomes absolutely insoluble at a certain stage. To widen roads is difficult and costly, if not impossible in most cases. Sometimes the bottlenecks are set by narrow culverts and bridges, whose reconditioning is a financial nightmare to the local boards responsible for their maintenance. The net outcome of these circumstances is to make the narrowest or weakest part of the road the determinant of road-usefulness.

Control by external authorities

Road transport is controlled by external authorities. What seems to be a somewhat reasonable privilege of business concerns, namely the capacity for internal control of activities, does not apply to road haulage.

CSL

The railways have their own men to control traffic, to limit speeds, to restrict weights, to impose other conditions, to stop trains and to start them. This is possible for two reasons: first, that the railway passes on an almost protected track, removed from densely peopled centres over most of its length; and second, that it has in its employ persons with acknowledged technical skill and conforming to governmental standards. But motors differ from these conditions. It is their privilege as well as curse that they pass through the busiest centres and streets. And it is obvious that roads cannot be segregated, to suit each vehicle's motion, nor can every vehicle command a highly expert staff to direct its motion. Out of dire necessity and in public interest, road haulage units require some sort of external control.

It need not be laboured that the motorman gets his task done by the policeman at a trifling cost to him. How arduous the policeman's task really is, is best seen from the statement: "what happened at present was that directly a constable had become trained in traffic control duties he did his best to be transferred to some other duty where the work was not so hard."[*]

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[*] Report of the Road Traffic Taxation Committee, 1932, U. P.. [illegible]

CSL

Let us set aside the question of benefit thus accruing to the haulier in that he escapes what a producer ought to incur on internal control and direction. The real question, at least from his standpoint, is: is this not more than offset by the diseconomy in practice springing from such external control? Are nct elements present of inefficiency, indifference, hostility, disinterest and corruption in the control of traffic by policemen, however well trained they were in point of efficiency and honesty? Are the speed controls necessarily in the haulier's operating interest? What about the congested crawling he is subjected to, occasional unrule in vehiclemen's movements, sign posts that are not conspicuous, visible or that misguide?

We have to admit that all these short comings cost the haulier both time and money and that control by outsiders, if inefficiently instituted, might cause accidents too. But we must simultaneously admit that external control is a necessary feature of road haulage. It is inherent in it. Our attempt should be to minimise its adverse effects on the haulier.

Variety of units on road

We find on roads a variety of transport

units—the bullock cart, the cycle, the hackney cart, the rickshaw, the motor bus, the lorry, the double decker, the trailer and the tram car. This is the consequence of the freedom of the highway for all people.

This heterogenous variety is a problem primarily to the road authorities, though ultimately it recoils in a way on the hauliers too. Road builders often labour under an indecision, into which they are thrown by this diverse conglomeration of possible road vehicles, whenever they have to set the standards of roads to be built. Are they to provide for bullock carts—for what type of tyres—, for motor buses, for lorries, for double deckers or for tram cars? If it is for all, which it ultimately comes to, is not the provision of road highly expensive?

This is an anomaly which leads to uneconomic consequences to the road-builders and the road-users alike. The former have to build a road suited to some vehicles and check its use by the other vehicles. The bullock cart with iron tyre may be mentioned in this connection. Out of sheer interest in economy in road maintenance road-builders have to prohibit it or discourage it from using the metalled roads. Alternately the road-authorities may build an all-vehicle road; but on grounds of finance and due to uncertainty of exact use by the many types of vehicles, this may not be a very desirable proposition.

The variety of road units is an inconvenience to an individual haulier, as his movements—speed, route, stoppings, etc.—are all controlled by external authorities in the general interests of all other modes of road transport also. It need not be added that it further implies the possibility of congestion and accidents.

Organisational Problems

It is unfortunate that road transport suffers not only from an unwise solution of its inherent problems described already, but from many internal vices. These short-comings are partly a consequence of age-old public indifference.

Incapacity for internal economies

At the outset we notice the utter incapacity of motor haulage for internal economies, which usually result from the largeness of the size of the business unit. Motormen, in most countries, are small hauliers, in the uneconomic sense that each usually owns but one or two vehicles. The distribution of England's motor vehicles is interesting in this connection.*

Such figures cannot be given for India as they are not available. But an investigation made into vehicle ownership on some important routes in the Madras Presidency in 1941 corroborated the view that the single-vehicle owner predominates.

This is perhaps the limit to which a democratic ownership of motor vehicles

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*"Gilbert Walker, "Road and Rail".

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Distribution of Vehicles:

"A": Vehicles operated by contractors holding public carriers' "A" licences. Vehicles specified on "A" licences.

Col. 1. Number of vehicles operated by each firm.
2. Total number of vehicles operated by those firms.
3. Proportion to total vehicles licenced on "A" licences.

1	2	3
1	14,060	17·3%
2	9,986	12·3
3	7,368	9·0
4	5,708	7·0
1- 4	37,122	45·6
5- 9	14,615	18.0
10-14	6,525	7·9
15-19	4,181	5·2
20-24	2,736	3·3
1-24	65,179	80·0
25-49	6,679	8·2
50-74	2,241	2·8
75-99	1,333	1·6
1-100	75,432	92·6
100and over	5,999	7·4
Total	81,431	100

"B": Vehicles operated by contractors holding limited carriers' "B" licences. Vehicles specified on "B" licences.

1	2	3
1	25,661	48·6%
2	9,838	18·6
3	4,859	9·2
4	2,772	5·3
1- 4	43,130	81·7
5- 9	5,168	9·7
10-14	1,616	3·3
15-19	1,070	2·0
20-24	453	·8
1-24	51,437	97·5
25 and over	1,362	2·5
Total ...	52,799	100

could go, the most uneconomic limit. It is evident that an owner of twenty vehicles derives some economies denied to the owner of one vehicle. The "big" owner beats chiefly in the field of vehicle maintenance. He could store a relatively small equipment of parts and accessories; he could entertain a small reserve of labour force; he could make bulk purchases at concession rates, most of all, his asset lies

CSL

in his wide experience and opportunity. The small haulier is a self-condemning contrast on all these counts. But he has been the prop of motor haulage in our country. ✓

The small haulier is universally recognised as the bed rock on which the scheme of rationalised haulage often breaks. Being disorganised, his class is least amenable to control and most capable of evasion. He is very often the owner-driver arousing public sentiment in his favour, whenever a scheme of syndication is sponsored. He owes his existence probably to the fundamental features associated with road transport, namely a public road bed, a small capital investment and a decentralised administration of road transport. While all these encourage the constitution of small haulage, its survival has gained assurance from certain misconceptions on the part of the public; that road transport, which was secondary to railways and of local significance, did not merit legislation against small haulage; that the small haulier offers an elastic check on the monopoly powers of the railway; and that the small haulier, by virtue of his smallness, needs protection from total extinction. It needs to be suggested that not one of these ideas suits modern conditions of transport. Nowadays the trend of road haulage is towards syndication, in the process of which the single haulier is bound to be absorbed to the nation's advantage.

Internal competition

The worst bane of motor haulage in all countries, including India, where it has developed under conditions of regulatory indifference, is internal competition. It is brought about by three factors. Firstly hauliers are small in the significant sense that each one operates one or a few vehicles. He has no comprehensive grasp of total needs, nor does he realise what exact part of them he has to cater to. Besides his accountancy practices are far from intelligent and recoil on him in the end; for he is mistaken enough to reduce rates to an uneconomic level, a level much lower than full costs. It is not untrue, as Walker holds, that he does not know what it costs him to do a service and he rarely quotes the correct rate or an economic rate.*

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* "The big haulier feels he has a responsibility to maintain an "economic" rate—one which covers all costs, direct and overhead, and leaves a reasonable margin for profit. The smaller operator is accused, often quite justifiably, of keeping no accounts. It is claimed that he does not know what it costs him to operate his services." Gilbert Walker, "Road and Rail."

Secondly, there is an excessive concentration of vehicles on a few remunerative routes. A comprehensive analysis of bus services was recently undertaken in the Guntur District of the Madras Presidency. It resulted in the following conclusions very relevant to our point: that 3 routes on which 14 buses were operating were not justified; that on 8 routes, 246 daily trips of the buses were not justified; that on 6 routes a reduction in the number of buses and daily trips was urgently called for; that notwithstanding the Motor Vehicle Rules, an increase in the number of buses on 7 routes competitive with the railway had occured in 1938-39; that on 8 routes there was scope for a rearrangement of routes with a view to co-ordination with the railway: and that by rearranging 6 routes buses could be ensured as feeders to the railway at 8 stations. Similar conditions obtain in almost all other districts too. The M. and S. M. Railway pointed to the Regional Transport Board, East Godavary, that a number of bus services (20 between Rajahmundry and Kotipalli, 13 between Coconada and Kotipalli and 9 between Samalkot and Rajahmundry via Dhawaleswaram) were out of all proportion to the needs of the area. In the Kistna District, the railway felt that the 12 buses on Masulipatam-Gudivada route and the 34 on the Masulipatam-Bezwada road were excessive. The Mitchell Kirkness Committee showed that the problem is unexceptionally of an all-India character. They referred to many roads in U. P. with "more buses ..... than the traffic justifies" and to many buses which "probably only get a turn on the road once in four days." Between Lahore and Amritsar in the Punjab "there are so many buses running that if they were started at regular intervals they could provide a five minute service." Their observation applied to the whole of India till the outbreak of the War in 1939, that "in general it appears to be that the number of buses is in excess of requirements."

Thirdly there has never been an effective regulation on the provision of service so as to result in a check on inter-motor competition. Even the powers that the Motor Vehicles Act confers on the Regional Authorities and the Provincial Governments have not been fully exercised. Rates have been left to fluctuate, and fluctuate below economic levels. Conditions of service, timings, frequency and regularity, amenities, etc., have been allowed to deteriorate into an unhealthy background for cut-throat competition. The number of buses and the trips per vehicle have not been stringently regulated. All these inadequacies have given wide latitude to the competitive caprice of the operators.

The only check on inter-bus competition in India lay in the formation of associations consisting of all or most operators in a route. Being a voluntary step it was difficult to achieve and easy to break. It must be noted that the Government has never evinced interest in encouraging the constitution of associations of motor hauliers who are by themselves incapable of unified action. The Motor Vehicles Act is still void of a provision which prompts a haulier to become the member of an agreement in a route. It was in the latter part of the recent war that the Madras Provincial Government promulgated that a licence would be granted to an operator with a minimum fleet of 20 vehicles. This however has been a short-lived regulation in the right direction; for the popular Government rescinded it and entitled a haulier with three vehicles to the licence.

The whole question of internal competition due to the above factors of private haulage and small scale haulage seems to be of declining gravity at present, in view of the proposed nationalisation of motor transport in most provinces.

CSL

Loss of capital

Till the outbreak of the recent war, motor haulage has continuously been a losing industry. Investors in it have liquidated themselves almost in succession. One haulier invests and operates, loses and retires; another takes his place. The same tale of woe waits on him until in his retreating heels steps in a third It is perhaps beyond doubt that the nation has wasted substantial capital resources in this losing game, though it is difficult to establish statistically the exact magnitude of these losses.

This has been the most tragic feature of road haulage; but it is the least recognised. Herein lies the essential difference in public outlook on railways and on roads. While the Government or the community is anxious to protect railway capital with a reasonable return (otherwise public money would be lost), it has rarely suggested itself as necessary that the road hauliers deserve the creation of conditions that assure not only dividends, but reasonable security of investments. It is callous not to realise that the losses of private hauliers are a national loss. It is essential to build up the concept of an economic allocation of capital resources on railways and roads and to implement effectively transport schemes that offer

CSL

fair encouragement to the road hauliers also.

Road transport can be placed on a sound economic basis if the Government assumes some responsibility for the maintenance of rates. There seems to be no alternative to it, short of nationalisation of the services. The real factor warranting interference of Governments with road transport rates has in all countries been the urgent need to protect road haulage from self-extinction rather than the possibility of public exploitation. Germany and S. Africa have launched on well-thought-out schemes of road rate regulation essentially in the interests of road haulage itself. The risk of total losses has not been serious in the case of road transport companies, in which railways are partners, as in England. In the light of these facts we may suggest that, as long as road transport remains a private enterprise, its economic soundness rests on the promotion of stable companies and on Government regulation of rates in an effective measure.

Motor regulation

Motor regulation in India has been unplanned and haphazard. It is true of most countries, including India, that motor laws lag behind the trend of motor transport, as they are made without due appreciation of the potentialities of developing road transport. Nor are they frequently modified so as to run parallel to the dynamic strides of motor transport. The present Motor Vehicles Act in India is a result of slow consolidation of various Provincial Acts and of the recommendations of expert committees on road transport. The Act of 1914, incorporating in itself 6 Provincial Acts, the Jayakar Road Development Committee of 1927, the draft set of model rules agreed upon by provinces in 1931, the Mitchell Kirkness Committee of 1933, the Road Rail Conference in Simla of 1933, the Traffic Advisory Council, the Wedgwood Committee of 1937, the Third Party Insurance Committee—these are some of the important factors that influenced the shape of the present law.

But the present law is neither efficient nor sufficient, if we understand the real purpose of motor laws. Road transport has some inherent characteristics like flexibility, some organisational drawbacks like small scale ownership, some inevitable anomalies like the divorce between the owner of roads and the operator and some chronic defects like cut-throat competition. These tend to place on motor laws a heavy responsibility. They should be so framed as to check these evils or minimise their consequences and to promote the indus-

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CSL

trial efficiency of road haulage. Road haulage is a public utility furnished by a disorganised set of capricious operators and it is up to the State to frame such laws as would be instrumental in enriching the standard of this service supremely important to the community.

This is, however, an oft-forgotten function of road laws. Primarily these are viewed as a set of regulations designed to secure public safety and check the obvious follies of hauliers. Even in this respect, the Indian law is not as perfect as it ought to be. There has till recently been a gross inadequacy of provisions relating to the efficiency of motormen and the condition of the vehicle the working hours of drivers and their duties in times of accidents etc. The Indian Railways have always had to complain of under-regulation of motor transport and the Mitchell-Kirkness Committee, as well as the Wedgwood Committee, threw light on the necessary lines of regulation.

The third object of motor laws is to promote the conditions necessary for road-rail co-ordination. Most road laws were made at a time when automobiles were not suspected with their present powers of competition with railways. In course of time motor transport has progressed too rapidly, while motor laws remained station-

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ary. The gulf between the two is comparable to that between a racing hare and tortoise. It is of some satisfaction to transport regulators that Chapter IV of the Motor Vehicles Act, in its present shape, empowers Provincial and Regional Transport Authorities to license or refuse to license a vehicle on a route, on the criteria of public convenience, road condition and existing facilities by rail and road. Admittedly these afford a proper background for the licensing of the desirable number of vehicles in a route. Yet the implementation of these sections of law has disclosed some significant shortcomings. In the first place the Regional Authorities, which are not fully equipped with traffic statistics in the various routes, have been taking decisions which are not invariably the best decisions that the Act contemplates. Apart from the error on the side of liberality or stringency in licensing, the Authorities have in practice been guilty of decisions varying from one another. The variance in outlook has been most conspicuous on vital questions like the definition of short and long distances in the licensing of vehicles, the specification of the number of trips per vehicle and the extent to which railway requests for co-ordinative regulations on road hauliers ought to be complied with. It

CSL

may be suggested in this connection that the 'region' of the Regional Authority should be a region in the traffic sense and should not invariably coincide with a political region.

The present Act, which is a distinct improvement over the former motor laws in India, does not go far enough in improving the efficiency of motor haulage, and in promoting a co-ordinated road-rail development. It is silent on many issues relating to working conditions in road haulage. It can not be overstressed that motor laws can ill afford to leave questions like wages, service conditions, hours of working etc. to the bargaining strength of employers and employees in these days.

To be of the greatest good to the community the Act needs certain provisions which are calculted to open up new areas. Pioneer services must be encouraged in rural routes, which are far too many in India. As these do not hold immediate prospect of profit to the operators, they deserve initial protection from the Government in the shape of the conferment of semi-monopoly powers for a limited period, during which they would be able to compensate themselves for the early losses. While recommending such initial and limited monopolies, the recent Technical Sub-Committee on Road Rail Relations

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CSL

have favoured the grant of subsidies to the operators concerned. Subsidies, however, do not seem to be a wise solution of the problem of rural expansions. Firstly the needs of opening up are too large and would involve extravagant payments from the public exchequer. Further it would not be unreasonable to ask the motor haulier—preferably stable companies with a large fleet—to run some rural services also in conjunction with their profitable services. This compulsion may be considered as the price that the operator has to pay, in public interest, for his profitable licences.

It is strange that rate-fixing powers, which the Act confers on the Provincial Governments, are rarely exercised in the interests of road hauliers or of road-rail co-ordination. Road rates are the ultimate pillar on which the stability of the whole structure of road-rail co-ordination depends. Unregulated, they disturb the whole structure of railway rates and there cannot be road-rail harmony unless road rates too are brought under effective regulation. It is essential that the existing powers under the Act should be enlarged and, what is more important in practice, these powers should be effectively used by the Provincial Governments, in close collaboration with the Regional Authorities and in close co-operation with the Railway authorities.

Lack of statistics

One of the most fundamental shortcomings of road haulage industry in India is the utter dearth of useful statistics. Excepting the bare figures of road length and vehicle number, available with the Government, we have little information on the more vital questions relating to service and traffic. What is the nature and capacity of service rendered on roads? What is the nature and volume of passenger and goods traffic on the roads? What proportion does actual traffic bear to the potential traffic? We are without an answer to these queries.

The Motor Vehicles Act does not demand of the operators any statistical returns. It is high time that the Government should part from this path of indifference. Primarily road transport statistics are full of benefit to both the Government as the owner of roads and the haulier as the operator It can be seen at once that reliable traffic data would admirably assist the road authorities in deciding on the standards of roads to be built or rebuilt. The data would call for just the proper level of expenditure on roads and road improvements and would assure the haulier a proper road bed.

A scheme of road statistics is all the more urgent at present, when the Govern-

CSL

ment is about to launch on an unprecedented scheme of road expansion in the country. It is necessary to provide against extravagance on roads possibly far in excess of traffic needs. It is likewise essential to provide against roads too low in standard to bear the full intensity of traffic. The ideal of an equilibrium between road standards and traffic needs would be best achieved with the aid of statistical data throwing full light on existing and potential traffic needs of the new areas.

We are often struck with a maladjustment between traffic needs and transport services on many routes. Though the operators seem to deserve the blame, it is fundamentally a legacy of licensing indiscretion erring on generosity or stringency. Is it not essential that the Government should take the necessary caution to place licensing on a scientific basis—aided by full statistical material—so that neither the hauliers nor the public have reason to complain?

The importance of road transport statistics from the standpoint of road-rail co-ordination cannot be over-stressed.

The ultimate basis of co-ordination, whatever the means, boils down to the allocation of traffic to the two agencies, so as to assure the cheapest and most convenient carriage to the community. This implies that there should be regulation, and that the regulation should be based on reliable data. Regulation, without supporting statistics, amounts to interference and becomes either too hard or too ineffective. And the road-rail plan, however fine in edifice, collapses like a castle of cards for want of the necessary foundation. Now we have in India full information regarding railway and coaster services, but not of roads. To collect road statistics is the first pre-requisite of a road-rail plan of co-ordination in our country.

It may be mentioned that road statistics will have a good effect on road haulage itself. They often unfold operational shortcomings, disclose traffic potentialities and indicate the nature and volume of service needed by traffic. They arouse a gradual urge for internal improvements and pave the way for an equilibrium between the needs of the public and the methods of service.

It is not necessary fully to deal with the descriptive details of the necessary statistics. Briefly, these should comprise two sets of compilations. The first one relates to the returns to be submitted by the operator, ranging over facts and figures of route and service, working con-

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ditions, traffic, rates, accidents and history of service. These refer to a route and constitute the primary data. Being stray pieces of information, they need proper edition and arrangement at the hands of the Regional Authorities. The latter should compile the second set of statistics, summarising the individual returns so as to show conspicuously on each route, the nature of road, length of road parallel to railway, places directly and indirectly served by motor vehicles, trips per vehicle, volume of traffic month by month, both passenger and goods, daily average vehicle mileage and vehicle load, fares and rates charged, etc. Further they should publish an annual regional account of motor transport, dealing with such far-reaching problems as length of service-routes, size and nature of vehicle ownership, state and progress of syndication, exact road-rail position, etc. In fact these virtually relate to some of the significant aspects of rationalisation in the motor transport industry.

It is admitted that at the outset the scheme might be unintelligible and unpalatable to many operators at present. But the Government ought not to shirk from this necessary line of action. In fact the Government should realise that its regulating powers are favourably influ-

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enced by some new factors in Indian transport. Road transport is already in the throes of syndication. Railway participation in road haulage is fast materialising The Provincial Governments are themselves developing an unprecedented interest in the provision of road service. And the Government of India itself is out to sponsor some definite scheme of road rail co-ordination. The scheme of road statistics suggested here will be but one aspect of this big plan.

Road Transport Rates

In the study of road transport rates we are not confronted with the type of complications inherent in rail rate-making. The provision of services on the road has not so far presented the problem of joint costs in India, since the average operator specialises either in passenger or in goods transport. Even in the few cases where both the services are undertaken, the expenditure is hardly unallocable between passenger and goods services. The direct charges like wages, fuel and repairs are known separately for the bus and the lorry. The provision of depreciation and interest charges depends on the available figures of capital value of the vehicle. The operator is not faced with the apportionment of the cost of the road either, since his payment of licence is specifically for the bus or the lorry. In the case of the small haulier the problem of workshop and overhead expenses rarely arises. These are the only item of joint cost which a company with a large fleet of buses and lorries is occasioned to allocate judiciously.

There is another feature of costs which more significantly simplifies the problem of fixing rates on roads. The phenomenon of falling costs with rising traffic is less pronounced on roads than on railways. It is true that, within the limits of vehicle capacity, an expansion of traffic reduces unit costs. It is sometimes economic to haul more traffic within the maximum possible daily vehicle mileage, provided law permits an increase in the number of trips for the same licence fee. Beyond this narrow range, an increase in traffic is not followed with a direct fall in the cost per passenger mile or ton mile. Consequently it is possible for the operator to ascertain what a certain traffic in itself, costs him and quote a rate correspondingly, after allowing for interest and licence charges. The R. T. D. of Hyderabad has been able to reduce most costs to their per mile bases; supervision and general charges, taxation and interest on capital may be approximately apportioned on the basis of the expected vehicle mileage in the period concerned. The R. T. D. calculated its mileage cost in 1943-44 at 47·31 pies per 34-seater bus mile, excluding wages and depreciation. These included, the cost was about 70 pies. The other charges on supervision, taxation, administration and interest on capital were calculated at 276 pies per hour or roughly 12 pies per mile. It is clear from this computation that out of a 82 pies cost per bus mile 70 pies or 85% was definitely calculable as well as directly variable with traffic, the margin for increasing returns being very narrow.

It is helpful to appreciate this distinctive feature of road transport costs, when we discuss the ethics of road-rail competition. The diversion of traffic from the railway involves a positive rise in the unit cost of handling railway traffic. Yet the addition of that dose of traffic does not result in a corresponding economy in the costs of hauling on the road. Both ways the community suffers and the marginal cost of transport on the whole rises. The authorities, that hold the responsibility for road maintenance, would be well advised to study the full effects of a rise in traffic on roads at the expense of railways. While the plant capacity of the railways is under-utilised and uneconomically maintained, road authorities might be called upon to launch on expensive schemes of road improvements in order to allow of the diverted volumes of traffic. In such circumstances it is unwise to waste public money on a road bed, which will not result

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in a fall in road transport rates sufficiently to compensate for the diseconomy forced on the railways.

The organisational simplicity that has so far obtained in road haulage, adds to the ease of making rates on the basis of costs. Road services have been of local significance, rendered by a small haulier whose interests do not extend beyond his short route. It has never been felt as necessary that his rates in his particular route should bear some relativity to those in other areas, that they should depend on an estimate of the financial results of other routes, or that they should be manipulated so as to discriminate in favour of some places as against others. The operating range has been so small and the demand conditions of such local significance that the haulier is not obliged to look beyond his own costs for guidance in rate making. ✓

There is one major hurdle in the study of road transport rates, however. While a good basis of rate making, there is no standardised level of operating costs for the whole country of India or even for any single Province. Costs vary from one haulage unit to another according to its bulk and legal status. The question of wages, which present many local variations, is a disturbing one. The owner-driver does not usually count as cost the wages due to him as a worker. Similar is the garage rent, which in rural areas is rarely reckoned as a cost. It is inevitable that the costs should vary from district to district when motor vehicle taxation differs from one to the other. The variance is more certain between Province and Province. The Mitchell-Kirkness Committee calculated that taxes were 20% of total costs in the Punjab, 20·5% in Bengal, 21% in C. P., 23% in Bihar and Orissa, 27% in U. P. and 40% in Madras. Above all these distortions to standardisation, there is utterly no uniformity of accountancy practice. Law does not require it and the haulier does not know how to benefit from it. The cost sheets of different hauliers, where they are available, are not homogenous, in short.

The only way out is to compile a cost sheet by including all reasonable items of expenditure. The Mitchell-Kirkness Committee made the calculations to suit three cases: (1) very heavy Provincial and local taxation, eg., Madras; (2) low taxation, eg., C. P., and (3) a hypothetical condition of no tax. Their cost sheet is as follows:

Expenditure	Madras		Central Provinces		Hypothetical case	
	Amount Rs.	Tax element Rs.	Amount Rs.	Tax element Rs.	Amount Rs.	Tax element Rs.
A. Fixed yearly charges:						
Insurance ...	268	...	268	...	268	...
Wages ...	780	...	780	...	780	..
Rent ...	60	...	60	...	60	...
Provincial tax...	500	500	160	160	...	...
Local tax ...	1,000	1,000	30	30	...	...
Miscellaneous taxes ...	66	66	12	12	...	...
Interest 12% on half investment	220	...	220	...	220	...
Total ...	2,894	1,566	1,530	202	1,328	...
B. Depreciation-15,000 miles per annum..	803	115	840	115	840	115

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Expenditure	Madras		Central Provinces		Hypothetical case	
	Amount Rs.	Tax element Rs.	Amount Rs.	Tax element Rs.	Amount Rs.	Tax element Rs.
C. Running charges:						
Petrol (882 gals.)	1,185	550	1,435	550	1,515	550
Tyres 1½ sets ...	653	113	653	113	653	113
Oil and grease...	100	10	100	10	100	10
Repairs ...	200	...	200	...	200	...
Spare parts ...	100	15	100	15	100	15
Total ...	2,238	688	2,488	688	2,568	688
Total all charges	5,935	2,367	4,858	1,005	4,736	803

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Expenditure	Madras		Central Provinces		Hypothetical case	
	Amount Rs.	Tax element Rs.	Amount Rs.	Tax element Rs.	Amount Rs.	Tax element Rs.
Tax element represents % all-round ...	...	40	...	21	...	17
Cost per mile at 15,000 bus miles a year ...	As. 6·32	As. 2·53	As. 5·18	As. 1·07	As. 5·06	As. 0·86
Cost at 20,000 miles ...	5·43	2·08	4·70	1·04	4·63	0·88
Tax percent ...	...	38	...	22	...	19
Cost at 30,000 miles As.	4·75	1·67	4·32	0.98	4·28	0·87
Tax percent ...	...	35	...	23	..	20

The following cost sheet relating to the R. T. D. services in 1938-39 is included to show the effects of bulk ownership and operation of vehicles by a large public body with commercial scruples and long term interests.

Item of expenditure	Amount Rs. 000s	Cost per Vehicle mile Pies
I.—General Administration:		
1. Management and Supervision	314	7·15
2. Contribution to Provident Fund institution, gratuities, etc.	43	.97
	357	8·02
II.—Ordinary Repairs and Maintenance ...	786	17·68
III.—Operating Expenses:		
1. Running staff ...	359	8·06
2, Fuel ...	415	9·32
3. Other items ..	207	4·67
	981	22·05
IV.—Replacements and Renewals:	798	17·95
Total operating expenses ..	2,923	55·70
Interest on capital outlay @ 5%	201	6·56
Total recoverable charges ...	3,214	72·26

The main inferences from these sheets are (1) that taxation is a very important element of motor transport costs (2) that costs are unmistakably lower in areas, like C. P. and Hyderabad, where taxes are relatively low (3) that 'the greater the annual mileage over which to distribute the standing costs the lower the cost per mile'* (4) that large scale ownership and operation results, in spite of overheads, a net saving in the cost per vehicle mile and (5) that the costs of the average operator, as per the Committee's calculations, are obviously high, intrinsically and in comparison with similar railway figures. Since costs are the chief basis of rates in road transport, it is of utmost importance that road operators should economise working costs so as to undertake a justifiable reduction of rates. All along the source of motivation has been petrol, a costly import subjected to high taxation. It would be far more economical if it were substituted by diesel oil. The R. T. D. of Hyderabad adopted it as early as in 1934, with the admirable result that in 1937-38 the actual fuel cost was Rs. 3,70,000, as against Rs. 16,77,000 which would have been the fuel bill had petrol been used.

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*L. M. Meyrick-Jones, Commercial Motor Road Transport.

The saving is very pronounced, despite the higher cost of the vehicle suited to diesel oil operation. The producer gas plant, a recent innovation in India, is capable of similar fuel economy. But war time experience prompts us to observe that its usefulness is conditional on the production of vehicles originally suited to charcoal operation and on a great deal of research in the production and operation of the gas plant itself.

The constant effort abroad at the cheapening of the motor vehicle not only as an end in itself but as a means to substitute it for the tramcar has resulted in the use of the trailer, which adds to the carrying capacity without raising the operating expenditure correspondingly. L. M. Meyrick-Jones has prepared the following cost sheet, comparing a bare 3-ton vehicle with one to which a trailer of two-thirds

	Vehicle	Vehicle-cum-trailer
Running costs:	d·	d·
Fuel at 6·25 m.p.g....	2·64	3·30
Lubrication ...	·16	·18
Tyres	·59	·89
Maintenance ...	·21	·32
Repairs ...	·93	1·00
Depreciation ...	·79	·88
Per mile ...	5·32	6·57

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its carrying capacity is attached.*

Standing Costs:	£	sh.	d.	£	sh.	d.
Wages, driver ...	176	16	0	176	16	0
„ Assistant ...		...		145	12	0
Relief services ...	17	5	0	20	2	6
Garage expenses ...	12	14	0	17	0	0
Management ...	10	0	0	10	0	0
Licence ...	32	0	0	38	0	0
Insurance ...	19	12	0	21	0	9
Interest ...	29	10	0	34	0	0
Contingencies ...	7	10	0	8	10	0
	304	17	0	471	1	3

The running cost per ton is 1.31 d. for the vehicle-cum-trailer and the standing costs £ 94-4-3. The corresponding figures in the case of the bare vehicle are 1.74 d. and £ 101-12-7. Obviously the trailer is the cheaper device. It may be popularised in India, especially on roads which are strong enough and have a high traffic density.

It is within the power of the operator to buy vehicles of large size which are more economical by virtue of their high seating or loading capacity. The RTD experienced a per mile cost of 43.91 pies and per hour cost of 520 pies in respect of a 27-seater bus, while the corresponding costs in respect of a 30-seater were 40.72 pies and 522 pies. The wide acquisition of large sized vehicles in India is desirable but depends on many factors. It requires large capital resources and a high density of traffic in the route. The procurement of licence is linked with the condition of the road, which is beyond the operator's sphere of control. The very availability of the vehicle depends on the co-operation of automobile interests. These are all problems in India today.

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*Ibid.

The co-operation of automobile interests is of vital importance in enabling the haulier to achieve the proper measure of economy that standardisation of the vehicle would fetch him. If the whole fleet belongs to one type or a few limited designs, it would render maintenance a less expensive problem than when a large variety of vehicles awaits repairs in the workshops. The problems of maintenance would be limited, the cost of training skilled workers would be low, the storage requirements of accessories would be of a small variety and the burden of relief force of mechanics would be simple. But all this presupposes that the automobile companies undertake to supply a standardised design to the haulier. The absence of motor vehicle production units in India is likely to delay the achievement of maintenance and operating economies accruing from vehicle standardisation.

It should not be assumed from the above suggestions that it is given to the operator to achieve by individual effort the greatest possible measure of economy in his working costs. A large section of his expenditure is directly or indirectly independent of his own operating methods and is incapable of control by him. This is a distinctive feature of road transport, whose costs are controlled by internal as well as external factors. Among the latter are taxation and road bed. Sufficient emphasis has been laid in the cost sheets compiled by the Mitchell-Kirkness Committee on the tax element in motor transport costs. The correlation between the condition of the road and the cost items of tyres, spares and accessories, repairs, depreciation and fuel consumption, can not be overstressed. As neither the tax nor the road condition is within the operator's control, his efficiency alone is not the determinant of his costs and rates.

While theoretically road transport rates could be based essentially on the costs of carriage, in practice the paradox in most routes in India has been that rates do not cover costs fully. The industry has rested chronically on uneconomic rates that liquidate one haulier after another in course of time. The largest single factor explaining it is the cut throat inter-vehicle competition, not to speak of road-rail competition at this stage. Void of accounting principles, the hauliers, whom licensing indiscretion permits in excessive numbers, are accustommed to underbid one another in order to take some traffic rather than not haul any. The Governments of Indian Provinces never exercised the rate controlling powers vested in them by the Motor Vehicles Act. With the exception of war conditions, the circumstance has always been one of self-effacing rates rather than that of public exploitation. And in all countries where Governments interfered with road rates the objective has been to protect road haulage from extinction.

Since 1929 road transport rates have assumed especial significance as they became basic in the grave road-rail competition. That the Indian railways lost heavily due to unrestricted motor competition can not be overstressed today. The comparison between road and rail rates would be incomplete without an appreciation of the essential characteristics of the two sets of rates. Road rates are chiefly dependent on the costs of the respective jobs, while the railway quotes rates on the principle of 'what the traffic will bear', unmindful of whether a rate covers the cost concern-

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ed. Railways are to undertake a judicious haulage of the nation's entire traffic at rates which make the total transport bill not only the lowest but the most rational. Besides railways are obliged to quote rates which, under efficient and economic management, cover the costs of service and earn a reasonable return on capital. The Indian railways have had further to contribute 1% on capital to the General Revenues. Consequently rail rates are heavily controlled by an all-India authority and can not be altered without the permission of the Railway Board. On the contrary road rates, being little controlled, are unstable and respond to the conditions on the spot.

In listening to the trader's claim that road rates are lower, we should recognise that road rates might prove cheaper for certain classes of traffic only. It is true that over short distances and for 'cream' traffic road rates are more economic. The disparity recoils on the railway in view of the classification to which law commits it. It is possible to uphold the class rates if only the railways are protected to retain the traffic that pays well in order to enable their carriage of the traffic that can not pay full rates. If the Government is unable to create these conditions, the railways would be obliged to lose to roads the high class traffic, for which rail rates are the higher ones, and saddled with the continued haulage of the low class traffic, for which rail rates are always lower. The situation will financially become intolerable for the railways; and the classification, which is the accepted backbone of national transportation, will break down.

The adverse effects on railway rates have already been felt in India. In the period 1900 to 1914, when motor competition did not exist, the trend of both passenger and goods rates was a falling one. The annual fall was by .004 pies in passenger rates and .094 pies in goods rates. But in the inter-war period, which witnessed ferocious road-rail rivalry more for passenger than for goods traffic, the passenger rates fell by an annual trend value of .0114pies, and the railways were forced in self-interest to raise goods rates. The trend of goods rates was one of a rise by .0482 pies in the 1920-30 period. In course of time the lorry began to eat into railway goods revenues and, whenever the railways adopted goods rate reduction as a counter measure, high class traffic which was the easiest to get diverted had to be accorded favourable consideration and concessions. The interests of low grade goods did not receive sufficient and effective attention from railway rate makers.

The following table is compiled to evidence the gravity of the diversion of traffic from railways to roads permitted by unregulated, uneconomic and often 'irresponsible' road rates.

It is clear from the table (1) that in the very short zones roads effectively compete with railways over a wide range of traffic; (2) that the telescopic rate principle on railways exposes the short distance traffic to effective competition by roads whose rates are based on the equal mileage principle; (3) that it is not impossible that the lower half of the classes should be effected by competition; (4) that in extreme cases roads bid for the lowest class of traffic and (5) that overloading, which is chronic, enables the lorry to transgress all reasonable limits of competition.

The solution seems to lie in (1) framing a classification on roads, which is difficult to enforce unless road haulage is entirely undertaken by a public corporation, (2) exempting the railways from the classification, which will bring in a rail rate anarchy and economic collapse,or(3) effective regulation of the zone of motor operation, the class of traffic that motor vehicles can carry and the conditions of such carriage. There ought to be a positive plan. The community will have to

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Road and Rail Charges (in annas and pies)

Miles	50	75	100	125	150	200	300	400
Lorry charges:								
1. At 4 as. 7 pies per mile with 50 cwt load	3·4	5·1	6·9	8·5	10·1	13·6	20·3	27·0
2. At 4 as. per mile with 80 cwt. load ...	4·8	7·3	9·8	12·2	14·7	19·6	29·2	39·0
3. At 4 as 7 pies per mile with 30 cwt. load ...	5·7	8·5	11·2	14·0	16·9	22·4	33·7	44·9
Railway charges:								
Full Parcel Rates ...	14·0	19·0	25·0	31·0	35·0	42·0	53·0	65·0
Betel leaf scale	10·0	15·0	19·0	24·0	27·0	33·0	38·0	49·0
Goods 10th Class ...	11·1	14·8	18·7	22·6	26·6	34·2	49·9	65·4
Half Parcels Rate ...	8·0	16·0	14·0	17·0	19·0	22·0	34·3	44·8
Goods 9th Class Rate ...	8·6	10·10	13·5	16·0	18·8	23·10	28·0	34·0
„ 8th „ ...	7.7	9·6	11·8	13·10	16·0	20·4	29·0	37·8
„ 7th „ ...	7·3	9·0	11·0	13·0	15·0	19·0	27·0	35·0
„ 6th „ ...	6·9	8·2	9·11	11·8	13·5	16·10	23·9	30·8
„ 5th „ ...	6·6	7·10	9·5	11·0	12·8	15·10	22·3	28·8
„ 4th „ ...	5·10	6·11	8·2	9·6	10·9	13·4	18·6	23·8
„ 3rd „ ...	5·8	6·8	7·10	9·1	10·3	12·8	17·6	22·4
„ 2nd „ ...	5·0	5·8	6·6	7·5	8·3	10·0	13·6	17·0
„ 1st „ ...	4·10	5·5	6·2	7·0	7·9	9·4	12·6	15·8

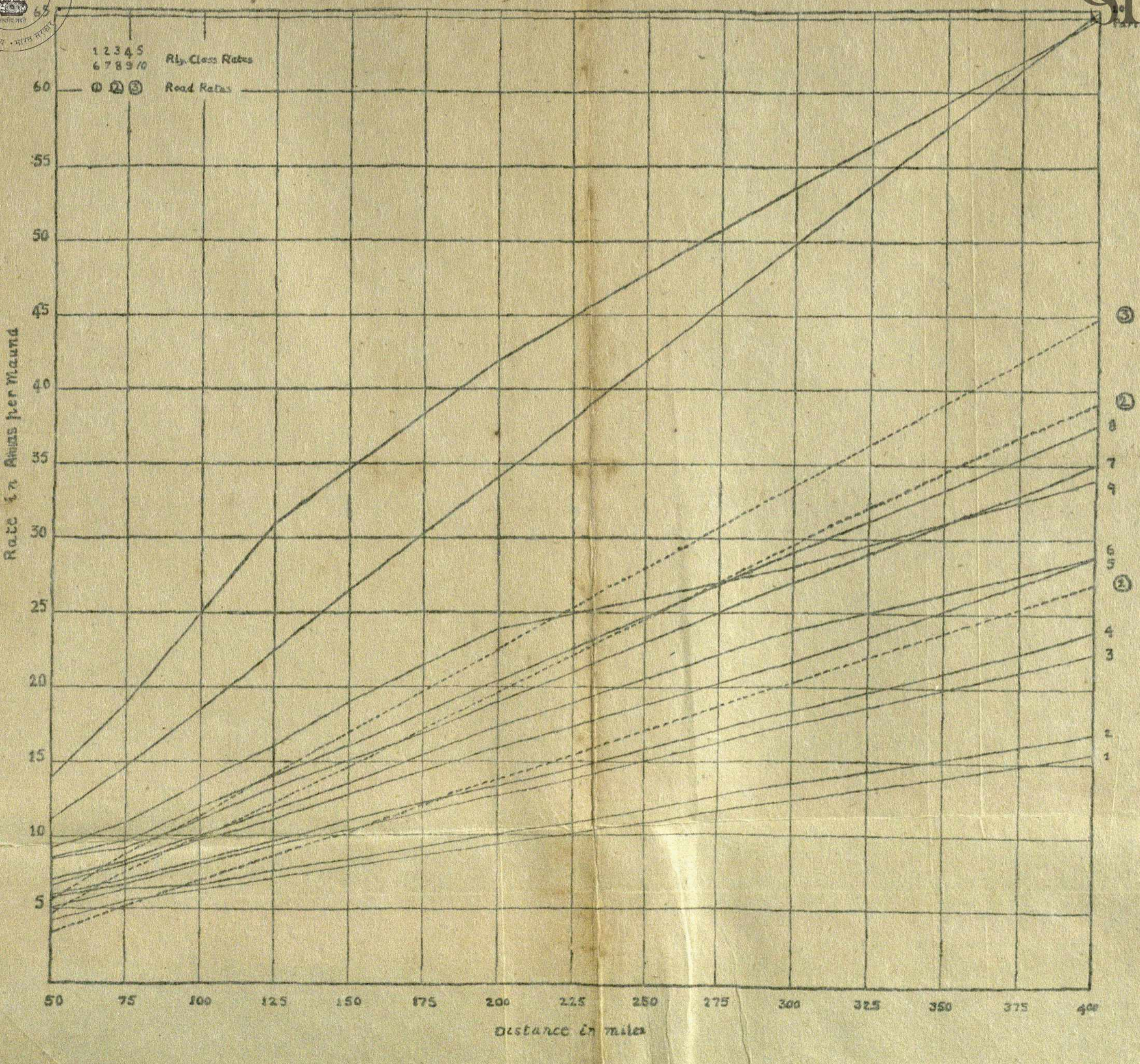
Railway charges include 2 as. for collection, forwarding, clearing and delivery; goods rates also include 1 anna terminal for all distances and 3 pies for short distance charge at 50 miles only.

The ...... line indicates the limit of classes for which the lorry can compete, if the cost is 4 as. 7 pies per mile and the load 30 cwt.

The - - - line indicates the limit, if the cost is 4 as. and the load 30 cwt.

The —— line indicates the limit, if the cost is 4 as 7 pies and the load 50 cwt.

ROAD AND RAIL RATES



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pay a dear price for further laissez faire attitude. It may be hoped that the present schemes of Provincialisation of road transport will stabilise the industry sufficiently to relieve the railways of their long standing anxiety and problems.

The R.T.D. of Hyderabad

The R. T. D. (Road Transport Department) of the H. E. H. The Nizam's State Railway was inaugurated in 1932. Fifteen years ago a native state was able to experiment a novel plan in road transport organisation—a plan that is still an ambition of the Indian Governments. Excepting the Russian system of road haulage, we have perhaps no exact parallel yet to the R. T. D. in any important country of the world, in the sense that it is a State undertaking, with monopoly powers over the entire State area.

2. The objects of the R. T. D. have not been laid down in any Act. The uncodified intentions of the Government could be best summarised in the words of the N. S. Railway Board:

(a) To provide a satisfactory service for the public, including necessary but unremunerative services;
(b) To prevent undesirable road and rail competition;
(c) To avoid the profits being diverted from the public and the State to private syndicates.

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These objects are neither novel nor uncommon of similar big bodies. Their real test lies in their fulfilment. Let us see briefly if the R. T. D. achieved the above objects in full measure.

The first object is closely associated with the social performance aspect of the R. T. D. The R. T. D. seems to be a notable exception to the charge that State institutions are capable of satisfactory business in theory rather than in practice. If rates were the consideration, the R. T. D. at once compares itself favourably with the private monopolies of the pre-R. T. D. days. In those days the average rate on most routes was about 7·5 pies per passenger mile. But the R.T.D. has maintained a rate of 6 pies since 1932. This fare advantage to the community was estimated in 1938-39 at no less than Rs. 7 lakhs. When we place convenience and comfort as the test, the R. T. D's services have fully justified themselves. The vehicles are much superior to the former "rattle-traps;" services are rendered as per published time tables; road-rail connections were maintained at 238 stations in 1937-38; and passenger ameneties—eg., sheds, nallahs, etc.—are extensively provided. Further many unremunerative services, which would never be undertaken by a private concern, are furnished by the

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R. T. D., to aid the railway or to assist in the balanced regional development of the State.

The R. T. D. is destined to succeed in its second object, consequent on the assumption of road services by the Railway authorities. The R. T. D. is significant in two respects: first it is a State concern and is State-run; second, it is a Railway Department and is Railway-run. The Railway has total control over the extent of road services and could so regulate it that the R. T. D is purely complementary to and never competitive with the railway. Further the Railway is empowered to control the rates of the R. T. D. The whole arrangement may savour of subordination of road services to railway services. Though it is not impossible that, in the guise of road-rail co-ordination, roads are starved, the N. S. Railway has not so far been guilty of undue curtailment of motor services in the interests solely of the railway. Actually the coordinative measures implemented by the N. S. R. have comprised the elimination of wasteful road services as on Secunderabad-Mahamadabad-Bidar roads and drastic curtailment of unpopular train services as on the B. G. section of local lines, regulation of road rates in the context of railway rates, provision of rail-cum-road services for passengers and goods and the development of feeder road services. The State has been able to achieve a very high order of road-rail harmony, to which there seems to be no hope of a parallel in the rest of India in the near future.

The third object looks anomalous to the rest of India, where motor operators are not known to make huge fortunes. But Hyderabad had three big monopolies, whose profits were consistently considerable. There was a company which declared a dividend of 18% in 1930. The State obviously desired to turn these private fortunes into a public legacy.

A fourth object may be mentioned too. It is negative and is perhaps a caution. There has always been the impulse not to make an excessive profit. But the Government was definite that "this department would, of course, have to be run on commercial lines. There is money in it." The Board expressed that "it is unlikely that the Government would allow us to earn more than a moderate return on the invested capital."

The financial genesis of the R. T. D., in short, was definite and the R. T. D. was on the one hand, obliged to earn on its capital and, on the other, not compelled to reap bumper profits. It follows that the huge private profits of earlier years were to be returned to the public in the shape of low rates or improved service, once the capital outlay was reasonably paid for.

The inception of the R. T. D. was precipitated by a conglomeration of factors, which rarely exist elsewhere in such a combination. It may be suggested at the outset that the R. T. D. would not have been a fait accompli, had it not been for the composite influence of the following circumstances.

The State had just purchased the railway and was anxious to perpetuate it as an unchallenged asset. It stood as a guarantor of railway dividends in former years. Now it stood to gain directly if railway finances were protected. The depression of 1929 ran in the heels of the State purchase and totally unnerved the State to the point of quick decision on the preservation of railway revenues. While the other Indian railways were busy locating losses alternately at the doors of depression and motor competition, the State of Hyderabad was prompted to devise the R. T. D. in self-interest. Significantly the proposal actually emanated from the State that the R. T. D. should be inaugurated as an experimental measure to be undertaken by the N. S. Railway. The R. T. D. was clearly not a facet of the Railway's own ambition. It was a decisive will of the authorities, implying sufficient assurance that no effort shall be spared by the State, which the N.S. Railway requires for the sake of the R. T. D.'s success. Above all there arose at that time an extravagant scheme to set up a huge monopoly all over the State with an excessive private capital. This at once interested the N. S Railway to take up the scheme of the R. T. D. in earnest vigour. The R. T. D. was a defensive inception, designed gradually to extend its activities over the whole area of the state, supplanting private services totally and ultimately.

The above factors have more meaning than appears at the outset. They suitably twisted the psychology of the State—of the Government, of the Railway and of the people—and culminated in the formation of the R. T. D., which the public never seriously discountenanced. The need for such a favourable background requires stress, in view of the mixed feelings provoked by the current schemes of provincialisation of road services among the Central Government, the Railways, the operators and the public themselves,

We lack, in British India, not only the circumstances favourable for such formations, but some of the conditions that guaranteed the R. T. D.'s success. In the

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light of the monopolies that existed in Hyderabad before 193 and worked for some time along with the R. T. D: afterwards, the R. T. D. did not present itself as an unprecedented monopoly in road transport. There was no public resentment. Contrarily the passengers, who were accustommed to monopoly services of a private character, breathed a sigh of relief at the inception of the State organisation which was progressively to supplant the old monopolies. The R.T.D. was not a novel institution in principle or structure, though it was definitely different from the old concerns in consequences. As though to cement this favourable background of public psychology, there was revealed a healthy contrast in operating, rating and service matters between the R. T. D. and the old private monopolies. The R. T. D. stabilised rates at a lower level, scheduled road services not only efficiently in themselves but in co-ordination with the railway services and instituted certain drives of economy like the adoption of mobil oil as fuel. On the score of rates, which are the trump card of public appreciation, the R. T. D. was remarkably distinguished from the old monopolies, for the R. T. D. applied a 6 pies mile rate as against the average rate of 7·5 pies in the latter case. It may be

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mentioned here that conditions for such distinction do not elsewhere exist in India. The Indian road transport rates are uneconomically low and public institutions like the R.T.D. will have to reckon with the unfavourable, though necessary, point of difference from old hauliers, namely that the rates are actually higher. It may be concluded that the circumstances in Hyderabad, as described above, are so peculiarly favourable to the R. T. D. that even staunch opponents of nationalisation should admit the success of the R. T. D.

The R. T. D. gained substantially from the existence of a single authority on roads and railways in Hyderabad. The Government of the State is solely responsible for the maintenance of railways and roads and has been able to visualise comprehensively the problems of transport by road and rail. Railway management of roads sometimes involves operating arrangements suitable and economical to the railways. Equally probably railway revenues would be effected in the co-ordinated scheduling of road services with an eye on efficiency and public convenience. The provision of transport services, under these circumstances, would be best rendered if the effects of one agency on the other are tolerated by the concerned authority in

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due appreciation of ultimate results. The history of the R.T.D. was actually marked with many such arrangements that individually reduced either railway revenues or road revenues. But the State was equal to those effects as it was able to view the issues comprehensively. It may be briefly suggested here that the Indian Provinces present utterly different conditions in this respect.

That the R. T. D. rehearsed every one of its steps is amply borne out by the cautious principles that were upheld in the expansion of the R. T. D. The official object was clear that "eventually all the private passenger services will be replaced by the N. S. Railway." But the process of expansion was far from rapid or sudden; it was in measured graduation. First an experiment for three years, the R.T.D. had its greatest expansion in 1936. It never violently took over the existing concerns. It waited for their natural end, i. e., voluntary liquidation in view of early Government enunciation of State road transport policy. It is thus a successor to existing hauliers than a usurper of them on most routes.

The actual process of expansion pursued by the R. T. D. is of instructive value to similar other undertakings in India. The R. T. D. conspicuously excluded from

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early assumption roads which were remote and isolated, roads whose condition was discouraging, roads which were far removed from the Central Workshops and roads which rendered the organisation and administration of services difficult or ineffective. The order of expansion of R. T. D's. services was as follows: roads radiating from Hyderabad, roads which could be worked from the existing or proposed depots at Mahabubnagar and Jadecherla and finally roads in the north western portion of the Dominions. The lesson of this expansion is one of operating ease and administrative effectiveness.

The initial expansion of the R. T. D. services was marked with a threefold objective. Firstly, being an experiment, it was keen on earning sufficiently from its services. Secondly it was anxious to take over short-circuiting, parallel and feeder roads in the context of railway alignment, so as to rationalise services on them in the interests of the railway. Lastly the R. T. D. favoured the assumption of services on roads and routes which afforded sufficient opportunity for proving its superior efficiency in operation. These three cirteria ought to commend themselves to other similar bodies in India: namely self-sufficiency, efficiency and railway interest.

MINISTRY OF CULTURE · GOVERNMENT OF INDIA · संस्कृति मंत्रालय · भारत सरकार

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The explanation of the R. T. D's success would be incomplete without an appreciation of its careful policy of capital outlay. The N. S. Railway Board consistently stressed the need to invest the minimum necessary moneys. The R. T. D., which had to prove itself a successful experiment, realised that "if from the outset the corporation is over-capitalised and has difficulty in meeting the fixed or other investment charges on its capital, it is handicapped from the beginning."* It owed its sense of strictness and scrutiny in expenditure partly to the trend of those times, characterised with a slump in business activity. The policy of cautious capitalisation was immensely assisted by the very methods of acquisition of services. The R. T. D. in the first place disliked to replace private concerns and, in the case of displacement, was prepared to pay a price which did *not* include "any compensatory element." The purchase was merely of equipment and not of the concern itself. It was in 1936 that the R. T. D's rail expansion took place, when the monopolies liquidated themselves without involving the R. T. D. in a price for acquisition. The Board positively dis-

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*"Public Enterprise," edited by William A. Robson.

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approved of a "simultaneous termination of a number of contracts, which would have an unhealthy effect on the amount of purchase consideration to be paid by the R. T. D. All this evidences the warning that the R. T. D. gave itself against over-capitalisation, to which even the London Passenger Transport Board succumbed as a consequence of the capital burden it inherited from the companies it supplanted.

It may be suggested in the end that the R. T. D. seems to have derived partial guarantee of success from the very state of road transport in Hyderabad in 1932. It was primitive, on official admission. and kept a wide field open to the R. T. D, without involving it in a clash with developed interests.

The success of the R.T.D. is as phenomenal as the R. T. D. itself. Costs are economised. Rates are lowered. Service is scheduled and stabilised. Labour gets a fair deal. The railway is protected And the State benefits too.

MINISTRY OF CULTURE · GOVERNMENT OF INDIA · संस्कृति मंत्रालय · भारत सरकार
CSL

Provincialisation of Road Transport

It was in the year 1929 that mechanical road transport in India forced the public to comprehend seriously the trends of its disorganised growth and its bitter inroads into railway economy. There was an urgent need for the stabilisation of the services, which were rendered by disorganised sets of small hauliers engaged in cut-throat competition. The rationalisation was warranted by two factors, firstly that road transport should be protected from self-extinction through its own follies and secondly that railways should be saved from the stupendous losses resulting from road-rail competition.

The first concrete recommendations on the subject were made by the Mitchell-Kirkness Committee in 1933. These formed a prelude to the line of thought that obtained in India till the year 1946, envisaging the stabilisation of road services under the auspices of the railways rather than in themselves and on an independent footing. The Committee considered railway assumption of road services as a desirable solution of road competition as well as of the intolerable defects developed by road transport. In so recommending, they were not unaware of the objections that the railway would become a monopoly, that its road rates, being economic rates, were bound to be higher than the normal private rates and that it amounted to an interference with the field of private enterprise. The Government did not act on the proposal. Meantime railway losses from road competition became alarmingly large. The Wedgwood Committee reiterated the proposal in 1937 and pleaded for the expansion of powers that railways insufficiently derived from law in respect of inaugurating road services. The English and South African models of co-ordination were upheld for adoption as per circumstances, the railways participating in road companies in England and running their own road services in South Africa.

The Government did not adopt the scheme. Instead railways were allowed to concert sundry counter measures against road competition. Probably the Government shirked the creation of State monopoly of combined road and rail services, with the consequence that, while railways had no scheme to benefit from, road transport itself lost all hope of stabilisation. The issue ought to have been taken up essentially as a measure of rationalising the organisation of road haulage.

The early stages of war, which witnessed the completion of the process of organisational improvements in road transport in other countries like Great Britain, were not marked with any vital change in India. It was about 1945 that, on the one hand, Provincial regulations were made requiring a licensee to own a minimum fleet of 20 vehicles and, on the other, the Central Government effectively revived the scheme of railway road services. The services were partly intended to relieve the railway lines of the growing congestion of traffic. The Government desired to take full advantage of war conditions of stringency in transport in inaugurating road services somewhat uncriticised. The public, however, had no sympathy and condemned the measures as a displacement of the small haulier, as a conferment of total monopoly on railways and as needlessly hasty. Politics dominated considerations of economics and the railways had to give up new schemes and slowly retrace their steps. The many efforts made by them at the formation of large joint stock companies, with a commanding interest in them, were foiled.

With the termination of war and the

institution of popular Governments in the Provinces, the issue of road transport organisation received a fresh lease of life. Emanating from the Provincial Governments, it was now a definite scheme in itself and has ultimately taken the shape of Provincialisation of road services. We shall discuss it in some detail.

Objectives

The primary objective, declared in all schemes of nationalisation of motor transport services is, in the words of the Madras Government, 'to provide an efficient and cheap transport service for the travelling public.' The history of private haulage has shown almost all the world over that, left to itself, it is incapable of creating for itself sustained conditions of efficient service. Private services have been cheap no doubt, but they have been so disorganised that there is no security to traffic of stability of rates or of service conditions. The growing demands of traffic in India have exposed the utter unsuitability and unreliability of motor services. The real basis of all remedial measures should be the unification of the haulage interests in every route. The Provincial Governments believe that nationalisation would ensure such unification of services in full measure.

MINISTRY OF CULTURE · GOVERNMENT OF INDIA
संस्कृति मंत्रालय · भारत सरकार

CSL

The scheme has been fathered by the desire of the Governments to improve their financial condition by running motor transport as a remunerative undertaking. Some Provincial Governments have admitted as a chief object of nationalisation the utilisation of the profits for the benefit of the community as a whole. The Madras Government contemplates to earn not only 6½ % on the capital outlay, which in itself is a source of revenue to the extent of the difference between the dividend rate and the general interest rates, but also a surplus over and above it, which the Government will be free to utilise in such a manner as it thinks fit. In discussing the issue, we must bear in mind that the Provincial Government loses the motor tax revenues automatically with the nationalisation of bus transport and that it is obliged to find some other source to cover its expenditure on road maintenance. To earn a profit, which is designed to finance road upkeep, is reasonabe enough. If the 6¼% were sufficient for the purpose, the justification of a higher level of profit becomes a debatable issue. If the surplus were also spent on road improvements, traffic would have little reason to grudge it. If on the other hand it were spent on *any* scheme of the Government, it amounts to an indirect tax on the community. Possibly the level of rates would be high and the primary objective of cheap transport may be defeated by the second object of high profits. It is improbable that in the near future operating costs would be so low as entirely to erase the conflict between these two objectives.

The rationalisation of road transport would never be complete without an endeavour to achieve its co-ordination with railway services. The Provincial Governments have realised that railways are the back-bone of land transport in India and that the energies of road transport ought not to be unleashed to the detriment of railways. Expressing the need for the elimination of wasteful competition between roads and railways, they have formulated a scheme of nationalisation which invites the railways of the area to participate financially in the public enterprise. The railways, to take an example, have been allotted 15% of the capital outlay in the Province of Madras.

Benefits

It is beyond doubt that the interests of traffic and of the community in general would gain immensely if the three objectives of efficient and cheap services, revenues for the Provincial Government and road-rail harmony are fulfilled. There are, besides, other indirect benefits. The chronic diseconomy arising from the fact that the haulier on the road is not the owner of the road would disappear with the organisation of services by the Provincial Government which has the responsibility for roads vested in itself. The operating side of the undertaking reveals the exact effects of road condition on costs, speeds, restrictions on trips, alignment of services, etc. Being an operator obliged to furnish cheap and efficient services, the Government would be prompted to undertake such road development measures as would economise the costs of motor operation. In brief the purpose of a road will then be fulfilled, namely the economy of transport service.

Likewise the Governments will be relieved of the charge that road building is usually undertaken without a full computation of the demands of traffic, an exact knowledge of the type of vehicles likely to use the road and a shrewd calculation of the potentialities of traffic growth in the area within a reasonably conceivable period in the future. It is possible for the Government to undertake road-building as well as radical betterments with the exact information and judgment that it acquires as haulier. It can assure itself that there will be neither a waste of public funds on a road bed that is not necessary nor a niggardliness on a road bed that is warranted by traffic conditions.

The Government will have the opportunity to present before itself a comprehensive budget embracing roads and road transport, upholding the ideal of net economy. Besides viewing road building in the perspective of ultimate operating economy, the Government at times may have occasion to discountenance an expansion of road services warranting huge capital expenditure on road improvements, if the real economy of the expanded services is so trifling as to be offset by the costs of such capital burden. This would ensure complete rationalisation of the Government activities both in road building and in road services. If the Governments are wise enough to implement the nationalisation on these lines, they would merit the applause of minimising the direct and indirect wastages usually characterising road finance.

Nationalisation helps in the solution of the problem of opening up new areas. The motor vehicle is the ideal instrument of transportation in the vast rural parts of India, which have neither railway connection nor hope of it. The pioneering of services in such thinly trafficked routes, which private operators with limited interest in short routes are averse to undertake, may be undertaken with ease and justification by the Provincial Government. For the Government, which realises the need for such expansions more intimately than a private haulier ever could, has the financial ease of running those services in conjunction with the profitable ones. As on railways, the good traffic routes pay initially for the lean areas. This is rare benefit which is denied to the community under most other schemes of road transport organisation.

Problems

While provincialisation eliminates some of the long standing defects in the organisation of road haulage in India and stabilises the industry on an economic basis, it is not without its own problems. The foremost of them is fundamentally linked with the issue of road-rail co-ordination. The railways in India are owned and managed by the Centre, while the roads are a Provincial subject. It is not impossible that the Central and Provincial transport services by railway and road respectively would develop a clash of interests in course of time. It is too early to guess whether the

Provincialisation would help in co-ordinating road services with the railways or would merely constitute an organised means of diversion of traffic from the railways. The history of Provincial administration of roads and road services all along gives ample reason to doubt that harmony of interests and unified action would prevail on the part of the Centre and the Provinces. It may be noted that, having visualised the road services as a remunerative enterprise capable of improving the general financial condition of the Governments, they will find it inconvenient to accept the limitation on road transport which railway interest may sometimes dictate. The full measure of road-rail co-ordination that the R. T. D. of Hyderabad has achieved may not be possible in the Provinces. The Technical Sub-Committee on Road Rail Relations pronounced in 1943 that 'we see no advantage in State ownership and management of road transport unless closely linked with the management of State railways, and any development which aligned a Provincial Government, or a local body, as a competitor with a railway would, in our opinion, be disastrous.' The same view was repeated by the Reconstruction Committee of Council in its Report on Reconstruction Planning in

1945. The present schemes of Provincialisation, despite the 15% capital allotted to railways, are the antithesis of the recommendation of these two Committees in favour of 'substantial bus companies,' with which 'railways should be encouraged to enter into closer co-operation with the ultimate object of acquiring a commanding interest.'

There are some financial complications which Provincialisation raises for the Central Government. The latter, which has so far had the opportunity to derive revenues from the income tax on private road haulage, will have to reckon with the loss of this source of revenue, as the enterprise passes into the hands of the Provincial Governments whom the present rules exempt from such taxation. It may be prompted to revise the financial relationships between the Centre and the Provinces so as to enable the Centre to tax the Provincial remunerative enterprise or to demand some share of the surpluses therefrom.

The possibilities of conflict are wider still. The taxation of imports of petrol and motor parts, which are the backbone of Provincial road haulage, is a Central prerogative. It has been exercised with the twofold objective of road-rail co-ordination and revenue for the Government. If Provincialisation exempts road haulage from licence fee costs and adds to its competing advantage, under the blessings of the Provincial Governments, the Centre may be forced to raise the import duties on the essentials of motor haulage industry. In the interests of maximum social returns from the transportation industry as a whole, the Central Government may be inclined to interfere with the motive of maximum returns for the Provincial Governments from their own road services. All this would be unpalatable to the Provincial Governments, despite a slight rise in the share of petrol tax allocated to them from the increased Central Road Fund.

We shall now turn to some aspects of the scheme itself. The primary issue concerns the capitalisation of the enterprise. As most of the schemes contemplate the passage of motor services into Provincial management in about five years, it may be observed that the capital outlay is bound to stand at a high figure at the existing levels of prices. This is an essential point of contrast with the successful R. T. D. of Hyderabad. The schemes of compensation, as of Madras and Bombay, at rates varying from Rs. 200 to Rs. 1,000 per permit according to the length of its unexpired validity, will inflate the investment

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further. On deeper consideration, the high capital outlay appears to be an inevitable feature of every scheme nowadays. The Provincial Governments would be unwise to shirk the present scheme for this reason alone. All that they ought to do is to strive to mitigate the effects of what will turn out to be an over-capitalisation in course of time. The motor vehicles, which cost heavily at present, will wear out in about five years. On the assumption that economic conditions in this short period allow of reasonably high rates, it would be desirable for the Provincial Governments to build up sufficient sinking funds from annual surpluses with the object of offsetting the otherwise permanent consequences of the present high capital expenditure. In short every item of capital expenditure undertaken at present ought to be followed with the provision of a fund or reserve which would accumulate to the level of the original value of the property concerned by the time the property reaches the stage of writing off. The fruition of this procedure ,depends on two factors, however. Firstly, will the Provincial Government be able to maintain rates at such a level as not only covers the operating costs but fetches the 6¼% besides the provision of the sinking fund suggested above? Besides being committed to the quotation of low rates, the Government will find itself labouring under the pressure of popular discontent at the high rates. Secondly, will the Provincial Government be guided invariably by the commercial prudence of providing the fund as a first charge on the excess of revenues over expenditure? Will it be prepared to claim the 6¼% only from the balance left over after this legitimate provision is made?

The capital structure of the Provincialised services is not entirely sound. The Government, in some Provinces like Madras, takes 51% of the share capital and has allotted 20% to local bodies, 15% to railways and 14% to private operators. The share of railways is very meagre and does not directly assure them any powers over the services and operating methods undertaken by the Provincial enterprise. The allocation of 20% capital to local bodies is fraught with the possibility that local influences would weigh unduly in running road services not necessarily in the interest of railways.

Fundamentally the share of private operators is not justifiable in principle. It is perhaps aimed at placating the public who have complained against the extinction of the small and private haulier. Under the scheme the extinction is by 76% and not cent per cent. The real question is whether private operators would be tempted to hold 14% of the share capital under the stipulated or implied conditions, that they are never eligible to more than 6¼%, that the surplus will be utilised by the Government for any of its purposes, that the shares cannot be sold otherwise than to the Government and that they have practically no share in framing the policy of the concern. Would any private operator be interested in an investment that does not allow of profit motive, of the prospect of appreciation in share values or of managing powers?

The Madras Government seems to have apprehended the uncertainty of private participation and has provided for increasing its own holding to the extent that private operators leave a gap in the allotted 14%. It may be suggested that it is desirable to allot it to railways and facilitate the expansion of their powers in the management of the concern.

There is a lacuna in the actual process of expansion in some Provinces like Madras. Two alternatives present themselves. The Government may nationalise all services in a district or zone before it goes to another. Or the Government may simultaneously adopt partial nationalisation in all districts or zones. The proposal in Madras is of the latter description, viz., 'that only 20% of total number of permits should be taken over in each of the bigger districts in the first year and that in the second year another 20% in these districts as well as 40% in the remaining districts should be taken over. The process will be continued year after year until all the services are taken over.' These proposals are represented pictorially for the sake of a clear understanding of their implications, assuming the number of important districts as 10. The alternative scheme of consolidation in one zone before another is taken up is also represented similarly as an instructive contrast.

The lines of expansion followed by the Government are objectionable in two ways. Firstly the process involves the Government in services which have to be run in competition with private operators during all the five years. In the first year, when 20% of services in the important districts are taken over, and in the second year, when another 20% there and 40% in the remaining districts are taken over, the Government will in fact be the smaller component of the road haulage agencies. Is it desirable that the Provincial Government should run services under conditions of intense competition with private operators? The charge may be met in one way, viz., whatever the percentage taken over in a district, whole routes shall be taken over.

Still there is the other and more vital objection. It makes for operating inconvenience and extravagance. The early years of nationalisation require the greatest economy and administrative rigour. The State services will be scattered over all the districts in the very second year. It can be gathered from the pictorial representations that, on the assumption that each district shall have a workshop, (a) the scheme of consolidation and (b) the Government scheme of simultaneous and alround expansion would require capital expenditure on workshops on the following scales:

Year	Number of workshops required by	
	Scheme (a)	Scheme (b)
1	2	10
2	8	15
3	5	
4	5	
5	5	
	25	25

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The Government scheme calls for expenditure in the first two years, at the existing high levels of prices, on the construction of workshops whose full utilisation starts at the end of five years. During the first five years, which should prove the financial sanity of the State enterprise, the burden of this capital cost and overheads will be too heavy as well as unwarranted. On the contrary the scheme of consolidation requires a gradual expenditure on 2, 8, 5, 5 and 5 workshops in the five years, each of which will have the guarantee of full exploitation in the very year of its construction. It need not be emphasised that consequently the burden of overheads will be far lighter than in the other case. The history of the R.T.D. certifies this method of expansion.

To conclude: Provincialisation is a definite step in stabilising road haulage and in promoting road-rail co-ordination. It is not the whole solution, however. Nor is it the most correct solution. The scheme, with its limitations in conception and objective, is likely to succeed if the Provinces 'concede in generous measure to the Centre the right of direction and control to be exercised through the Indian Road Board' and if the Provincial Governments give the railways a much higher share in the management

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of their road services, irrespective of their respective holdings in the enterprise.

Road Building and Road Plans

Roads, like railways, are intended for the purposes of transportation. Yet the provision of roads, unlike that of railways, raises financial problems whose solution may not prove the most satisfactory to all the parties concerned with road transport. There is fundamentally wide margin for anomalies in a system of road administration which involves the acquisition of funds by the Government from taxation levied on a large and heterogenous body of hauliers. The expenditure on certain roads is for purposes outside the scope of the mechanical modes of road haulage. It is quite possible in these circumstances that disparity should exist between the road bill incurred by the road authorities and the road revenues paid by the road vehicles, resulting in friction and controversy over the fairness and sufficiency of taxation. Emory R. Johnson emphasises the complexities of the problem in the following words: "How much of the amount spent upon local, secondary and primary highways and upon city streets should be regarded as expenditures for transportation facilities, and how much of the total outlay should be allocated to other uses made of the highways and to the benefits derived from non-transportation services, is not a problem of compilation and addition, but one to be solved mainly by the exercise of judgment. A problem thus solved seldom receives the same solution by all persons. Moreover, when a decision has been reached as to the share of highway expenditures that is to be regarded as transportation costs, one is still confronted with the equally difficult task of allocating an appropriate portion of those costs to each of the many types of motor vehicles that use the highways. The latter problem is a highly technical one, and its attempted solution has led to as much controversy as has been created by the division of highway expenditures between transportation and other costs."*

The Provincialisation of road administration, which has been further decentralised among local boards, has aggravated the inherent delicacies of the problem in India. Of the 2,96,000 miles of roads in 1943, 1,78,000 miles were managed by Local Bodies, 48,000 miles by the P.W.D.

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*Emory R. Johnson, "Rail-roads and Public Welfare."

and M.E.S. and 70,000 miles by Indian States. The main sources of expenditure were the following in 1938-39.

		Lakhs.
Provincial Road Revenues	Rs.	384
Local Funds	...	230
Road Fund Allocations	...	126
Loans	...	22
Total	...	762

Obviously the provision of roads depends on finances culled from a variety of sources: revenues through motor vehicle taxation by Provincial Government and Local Boards, special tax on petrol imports collected by the Centre and loans raised by the Provincial Government and Local Boards. The actual expenditure is in most Provinces by the district boards and municipalities, which add to their own resources the grants made by the Provincial Government, the latter including allocations from the petrol tax collections credited to the Central Road Fund.

There have been many defects in this cumbrous system of road financing. The building of roads has not kept pace with the growth of motor transport in India. It

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CSL

is estimated that between 1926 and 1942 India's road mileage increased by 13½% from 1,99,140 to 2,26,093 miles, while the number of motor vehicles rose from 54,220 in 1925-26 to 1,50,245 in 1939, i. e., by 194%, and to about double the number in 1946. The population rose meantime and the mileage of roads diminished from 789 to 764 per million persons between 1926 and 1942.

The main cause of retardation in the progress of road building has been the financial stringency that was experienced by the Provincial Governments since 1928. The growth of motor transport and the unhampered movements of the iron-tyred bullock cart made heavy demands on the Provincial Governments whose sources of money were inelastic. They had to curtail their annual expenditures, with the result that in 1938-39 the total expenditure in the Governors' Provinces was Rs. 602.1 lakhs, 41.7 lakhs less than in 1928.

One factor which seriously discouraged road building was the probability that, as long as the financial resources of the Provincial Governments and Local Boards did not improve substantially, an addition to the existing length would merely imply a lower maintenance expenditure

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per mile. The road authorities deserve the criticism that, despite repeated advice from the Indian Roads and Transport Development Association, they have not been anxious to finance road building by the issue of Road Bonds or by a Road Loan and 'by capitalising some of the current revenues for the payment of interest and sinking fund on a Road Loan.'* The fact that roads are a self-paying proposition in most cases should certify the sanity of such a procedure. The highway debt in India stood at the low figure of 62 lakhs in the year 1938-39. Many district boards in Provinces like Madras never raised a loan for road purposes.

One of the crucial issues concerning the diverse and somewhat high taxation in India has been that the Centre derives a substantial share of the total tax revenues paid by motor transport. The import duties on petrol, vehicles and parts contributed to Central Revenues Rs. 430 lakhs in 1931; Rs. 100 lakhs were paid into the Central Road Development Account; and the Provinces received the sum of Rs. 300 lakhs from motor vehicle taxation. The criticism that the Centre pockets a

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*Recommendations of the Indian Roads and Transport Development Association, submitted to the Mitchell-Kirkness Committee.

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huge share without any responsibility for road maintenance is partly related to the general taxation policy of the Central Government. The Central Government, however, has collected a special tax on petrol since 1929 with the definite intention of augmenting the resources of the Provinces by crediting the tax revenue to a Central Road Fund and allocating 85% of it to the Provinces and States in the ratio of their respective petrol sales. The remaining 15% is to remain as Reserve for administration expenses, research, etc. The allotments are to be spent on construction, reconstruction or substantial improvement of roads and bridges, interest and amortisation on road loans and also on administration of Provincial Boards of Communications and establishments connected with the control of motor transport. The amounts were not to be spent on ordinary repairs. Unfortunately the Provincial Governments began to substitute these allocations for their own expenditure. The original object was partly defeated and rules were later made that not less than 25% of the allotments should be spent on feeder roads and not more than 25% could be utilised for competitive roads. The Central Road Fund received about Rs. 21 crores upto March 1944, from which Rs. 17 crores were allotted and Rs. 4

crores transferred to Reserve.

It is imperative that road financing should be relieved of its many defects if roads are to expand and receive better maintenance. It is necessary that the Centre and the Provinces should arrive at an understanding as to the sharing of total tax revenues from motor transport in view of their respective responsibilities for road maintenance. The Provincial Governments should decide what proportion of their road bills should be recovered as tax on road transport units, as there are other beneficiaries too, and how far motor vehicles, as against the bullock cart, should be made to bear the burden of taxation. As a general point of guidance it may be suggested that road transport revenues should be devoted primarily to the development of roads as far as their upkeep demands them.

We shall now turn to the schemes of road expansion in India. In view of the crying need for a rapid expansion of roads in India, the Government adopted, as part of their Reconstruction planning, a Road Plan based on the recommendations of the Engineers of Provinces and States who met at Nagpur in 1943. The Nagpur plan comprised Government expenditure on the following items:

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	Miles	Cost (in crores of Rs.)	
National Highways	22,000	47	"
National Trails	3,000	3	"
Provincial Highways	65,000	121	"
District Roads—Major	60,000	62	"
" " Minor	100,000	80	"
Village Roads	150.000	30	"
Arrears of war years		10	"
Bridges, etc		45	"
Land acquisition		50	"
	4,00,000	448	"

The plan has two aspects. Firstly it is designed to serve the short term needs of employment of the demobilised men and vehicles. The addition of vehicles, particularly the military trucks, was so remarkable that India's post-war vehicle stock amounts roughly to twice the number in 1939. With a large number of demobilised soldiers, who were trained to drive during war, 'the seeds of immediate trouble' are obvious. The experience after the first world war may repeat itself as a relapse into road-rail anarchy. Visualising this possibility the road planners have included a short term programme of road building which would assist in a smooth allocation of war trucks and demobilised drivers.

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The more effective part of the plan is a long term programme extending over a period of 15 years. The whole scheme was estimated to cost about Rs. 448 crores, at 150% of the pre-war prices of materials and labour. It is too early to guess whether the full execution of the plan costs more or less. Later estimates by Special Officers in various Provinces and States have proved the originals as underestimates, at least in the economic conditions of the immediate future.

It is well that arrears of repairs during the war years are upheld as an item of capital importance at once. The Provincial Governments were unequal to the rising costs of road maintenance since the sources of their revenues did not correspondingly increase. Besides sky-rocketting prices of labour and material, the dearth of wagons to bring materials from the quarries and the insufficient supply of road rollers aggravated the problem. Meantime the damage to roads was fast increasing. It is perhaps reasonable that the Centre should share in the cost of those arrears, which were a consequence of abnormal factors brought about by war.

The plan would have been more comprehensive if it included as a specific item the radical improvements that the existing road system requires. The war arrears were the last fringes of the chronic state of deterioration that has been going on since 1925-26. Left to themselves the Provincial Governments would have neither the will nor the money enough for the purpose. The plan ought to have provided for Central guidance through the All-India Road Board in respect of the betterment of road standards in the whole country.

The importance attached to the development of rural roads is one of the interesting facets of the plan. The 150,000 miles of village roads form more than a third of the total scheduled mileage. Adding the minor district roads which are of an allied nature, 62% of the total length is calculated to serve the interests of villages, consistently with India's need that 'so far as motor transport is concerned, the main object should be to get into the heart of the country side. This should go hand in hand with road development on the same lines.'*

However admirable the scheduled length of village roads, the capital expenditure on them seems a rather meagre figure. It is doubtful whether the standard of village roads will be good enough for the purposes of rural marketing and the gradual growth of intercourse between rural and urban areas. There is, however, the view that 'what India needed was a large number of all-weather roads rather than a great increase in the mileage of roads of very superior types.'[*] Yet it is hard to believe that Rs. 2,000 per mile will result in an all-weather road of reasonable standards. The road that results will constitute an expensive maintenance problem to the Provincial Government or Local Bodies.

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*Reconstruction Committee of Council.

The national highways which figure at the outset mark a departure from the earlier methods of road classification as well as road finance. They are a new class to which is assigned higher prominence than to the trunk roads. The Central Government has undertaken the responsibility for their maintenance in view of their national and inter-provincial importance. To the extent to which it relieves the Provincial Governments from the task of their upkeep it is a welcome change. Besides, it inaugurates an era of positive central interest in matters connected with roads, which would facilitate the formulation of co-ordinated transport plans in the country.

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[*] Mr. J. Chambers, Presidential address at the Annual sessions of the Indian Roads Congress, 1946.

The Central responsibility for national highways is certain to raise the financial issue whether the centre should continue to make the allotments from the Road Fund as fully as formerly to the Provinces and the States. It is likely that the Centre would claim partial retention of the moneys with itself in view of the burden imposed by the interest charges, administration expenses and maintenance bill relating to the national highways. The Provinces are certain to counter the claim by arguing that already more than 60% of the proceeds of motor taxation in manifold ways accrues to the Centre and the curtailment of the allotments would strangulate their financial position in relation to the mounting road bills. The question has to be resolved when the financial rules are finally drawn up.

The outstanding merit of the plan lies in the recommendation of the Nagpur Conference in favour of the setting up of an all-india Road Board, with powers of guiding the development of roads and road transport in the various Provinces and States. It is essentially warranted by the fact that the Centre needs to watch the progress of road plans which are likely to have good as well as adverse effects on the Central Government. The Central concern is easily discernible as

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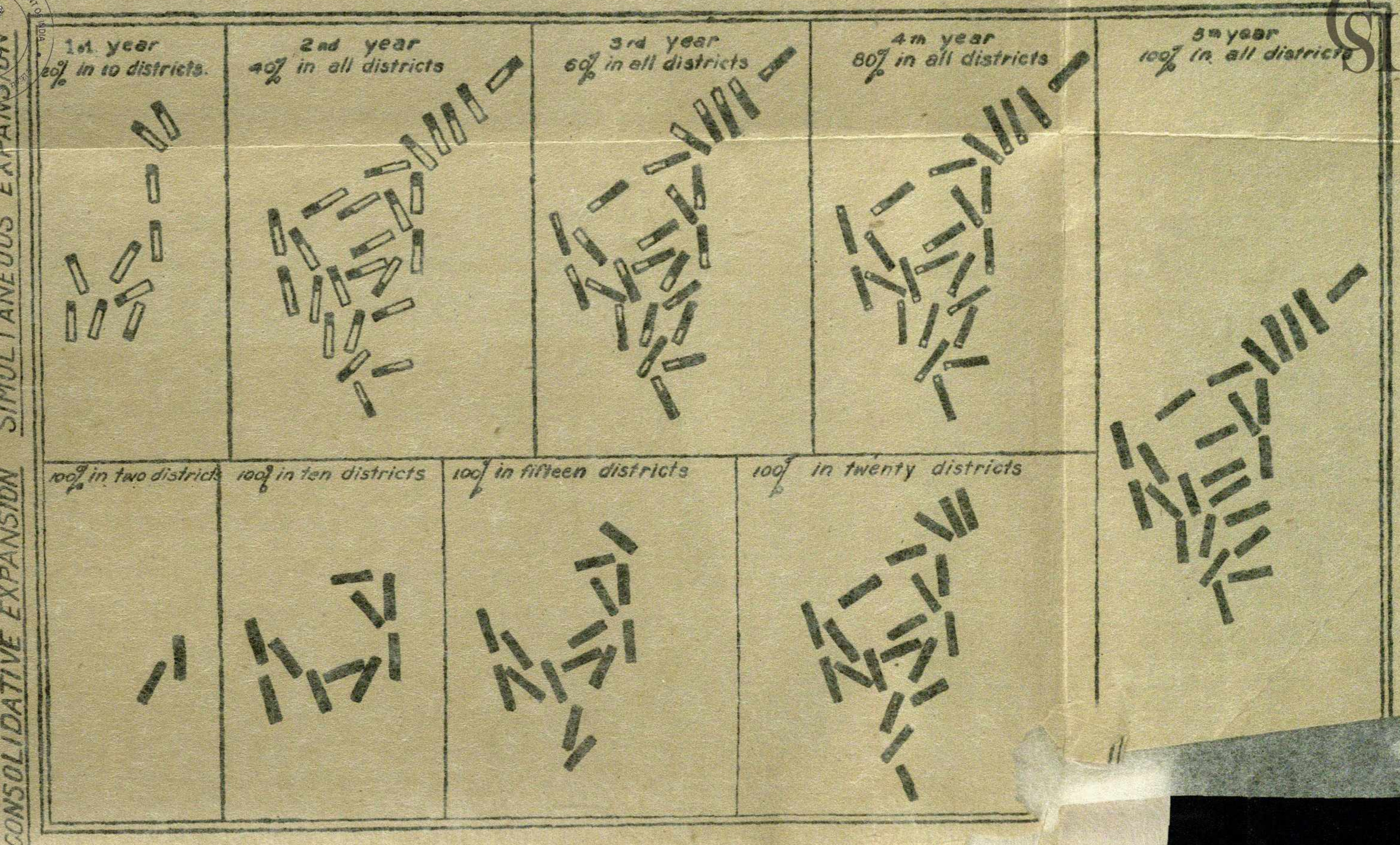
well as justified, if we take stock of the financial consequences that Provincial road projects would have on the Central railways. The Technical Sub Committee on Road Rail Relations made the valuable recommendation in 1944 that the Indian Road Board, working under the Transport Member of the Central Government, should administer the national highways directly and direct the Provincial administration of all road affairs. They proposed that the body should consist of (i) a chairman to direct and control both the road and road transport sides, (ii) a member to deal with road transport, (iii) a member to deal with road development, (iv) a financial adviser and member and (v) a secretary with administrative experience. 'Not withstanding the very real constitutional difficulty,' involved in these recommendations, the Committee emphatically believed that 'the future of land transport will be in grave danger of lasting damage during the transitional period with consequences possibly disastrous to the Provinces and the Centre alike, unless there is a unitary policy centrally organised and applied by arrangements of this nature.'

The Nagpur road plan is on the whole a desirable piece of reconstruction planning in India. Yet the prospects of its fruition depend on the actual policies of the various Governments. Some of the recent Provincial budgets disclose the niggardliness of allotments for road purposes.* It is admitted in the Report of the Advisory Planning Board published in June 1947 that the Nagpur aims have been considerably curtailed. The first part of the Plan for the next five years is formulated in full detail as follows:

Classification of roads	Expenditure during the first five years	Mileage improvement	New mileage
National Highways ...	Rs. 36 crores	5,421	787
Provincial Highways, Major and minor district roads ...	147	33,393	17,509
Village roads ...			30,093

The Provincial total of 147 crores is made up in the following way:

	Crores		Crores
Madras ...	Rs. 27·77	Bihar ...	Rs. 13·60
Bombay ...	20·80	C.P. & Bihar	7·00
Bengal ...	23·34	Assam ...	5·32
U. P. ...	30·72	Orissa ...	4·00
Punjab ...	12·49	Sind ...	8·85


SIMULTANEOUS EXPANSION
1st. year
20% in 10 districts.
2nd year
40% in all districts
3rd year
60% in all districts
4th year
80% in all districts
5th year
100% in all districts
CONSOLIDATIVE EXPANSION
100% in two districts
100% in ten districts
100% in fifteen districts
100% in twenty districts

The ultimate aims of the Road Plan have been summarised as follows by the Advisory Planning Board: "Madras hopes that at the end of fifteen years no village will be more than five miles from a highway or district road. Sind aims at placing every village and town of a population of over 1,000 on a road. The Punjab's ultimate object is to provide every town in the Province of over 5,000 population with a metalled road and to bring every village within two miles of an all-weather road." The success of the scheme depends ultimately on the establishment of the Indian Road Board and the Central Road Research Organisation within the Transport Department of the Centre, co-operation with the Railway Board and the proposed Railway Rates Tribunal, judicious formulation of financial rules for the Centre and the Provinces and effective harmony between the Provincial Governments and the Central Government of India.

Bibliography

Clark J. M.—Economics of Overhead Costs.

The Motor Vehicles Act.

National Public Works, League of Nations, Organisation for Communications and Transit.

Ramanadham V. V—Railway Road Services in India, New Hyderabad.

Robson William A.—Public Enterprise.

Walker Herbert—Road and Rail.

Weld William Earnest—India's Demand for Transportation.

White Percival—Motor Transportation.

Willey Malcolm M. Willey and Rice Stuart A.—Communication Agencies and Social Life.

Emory R. Johnson—Rail-roads and Public welfare.

The Mitchell Kirkness Committee Report.

Report of the Road Traffic Taxation Committee, 1932, U. P.

Report of the Technical Sub-Committee to the Subject Committee on Transport on the Future of Road Transport and Road Rail Relations.

The Reconstruction Committee of Council, Second Report on Re-construction Planning.

Report of the Advisory Planning Boards 1947.

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Report on the marketting of citrus fruits

,, ,, tobacco

,, ,, jute

,, ,, coffee

,, ,, wheat

Report of the Indian Industrial Commission.

Report of the Royal Commission on Agriculture in India.

The Indian Concrete Journal, January, 1946.

The Indian Economic Journal, April, 1945.

Indian Finance Annual, 1944.

Other Books for Reference

Badri Rao—Road rail Transport.

Brunner C. T.—The Problem of Motor Transport.

Chester D. N.—Public Control of Road Passenger Transport.

Fenelon K. G.—Road Transport.

Grupp—Economics of Motor Transportation.

Johnson, Huebner and Wilson—Principles of Transportation.

Jones, M.—Commercial Motor Transport

6799